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STAFF APPRAISAL REPORT

PAKISTAN

NWFP COMMUNITY INFRASTRUCTURE AND NHA STRENGTHENING PROJECT

FEBRUARY 13, 1996

Infrastructure Operations Division
Country Department I
South Asia Region

CURRENCY EQUIVALENTS

(January 1995)

Pakistan Rupee = 100 paisa
Currency Unit = Rupee (Rs)
Rs 1.00 = US$ 0.03
US$ 1.00 = Rs 31

MEASURES AND EQUIVALENTS

mm	=	millimeter (0.039 inches)
m	=	meter (3.28 feet)
km	=	kilometer (0.62 miles)
km2	=	1 square km (0.386 square miles)
mgd	=	million gallons per day (1 mgd - 4,546 m3/day)
l	=	liter (0.22 Imperial gallons or 0.264 US gallons)
lcd	=	liters per capita per day
m3	=	cubic meters (220 Imperial gallons or 264.2 US gallons)
ml	=	million liters
gpcd	=	Imperial gallons per capita per day

PRINCIPAL ABBREVIATIONS AND ACRONYMS

CBO	-	Community-Based Organizations
GONWFP	-	Government of NWFP
GOP	-	Government of Pakistan
LGERDD	-	Local Government, Elections and Rural Development Department
NGO	-	Non-Governmental Organization
NWFP	-	North-West Frontier Province
O&M	-	Operation and Maintenance
UNICEF	-	United Nations International Children's Educational Fund

GOP FISCAL YEAR

July 1 - June 30

PAKISTAN

NWFP COMMUNITY INFRASTRUCTURE AND NHA STRENGTHENING PROJECT

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This report is based on findings of an appraisal mission to Pakistan in January 1994. Project team members included: Mr. G. Lee (Municipal Financial Specialist, SA1IN), Task Manager and Mission Leader; Ms. J. Viloria (Institutional/Community Development Specialist, ASTTP); Mr. B. Assimakopoulos (Implementation Coordinator, SA1IN); Mr. C. Banes (Municipal Engineer, Consultant); Mr. L. Holstein (Land Management Specialist, Consultant); Mr. H. Katsura (Shelter Specialist, Consultant); and Mr. A. Wight (Institutional Specialist, Consultant) from the International Development Association; Mr. B. Girardin (Development Secretary) and Mr. P. Schubeler (Community Development Specialist, Consultant) from the Swiss Development Cooperation; and Mr. A. Ahad from UNICEF. Staff from the Pakistan Resident Mission included: Messrs. A. Malik (Disbursements), K. Minnatullah (Community Participation) and N. Qureshi (Project Officer and Procurement). The project is endorsed by Ms. M. Nishimizu, Director, Country Department I, South Asia Region, and Ms. M. Garcia-Zamor, Chief, Infrastructure Operations Division. The Peer Review team comprised Messrs. S. Choi, E. Rotner (project scope, design and implementation), and D. Williams (upgrading). Ms. Janice Palenzuela (SA1EF), Ms. Betty White (SA1EF), and Ms. Bina Duggal (SA1IN) assisted in the production of this report.

ISLAMIC REPUBLIC OF PAKISTAN

NWFP COMMUNITY INFRASTRUCTURE AND NHA STRENGTHENING PROJECT

Credit and Project Summary

Borrower:	Islamic Republic of Pakistan
Implementing Agencies:	National Housing Authority and Local Government, Elections and Rural Development Department
Beneficiaries:	National Housing Authority, Government of Pakistan, the Province of North-West Frontier (NWFP) and its respective Executing Agencies, and low-income communities in NWFP
Poverty:	Program of Targeted Interventions
Amount:	SDR 13.7 million (US$21.5 million equivalent)
Terms:	Standard, with 35 years maturity.
Commitment Fee:	0.50% on undisbursed credit balances, beginning 60 days after signing, less any waivers
Financing Plan:	See Para. 2.18
Economic Rate of Return:	About 31%
Map:	IBRD No. 26129
Project Identification Number:	PK-PA-10478

PAKISTAN

NWFP COMMUNITY INFRASTRUCTURE AND NHA STRENGTHENING PROJECT

STAFF APPRAISAL REPORT

I. THE SECTOR

A. Country Background

1.1 Pakistan is a low income country with GNP per capita estimated at US$416 per year in 1992. Its population is 110 million[1/] and is growing rapidly at a rate of over 3% per annum. Urbanization has been proceeding at a fast pace and by 1992 the share of urban population had increased to almost one third. Projections are that by the turn of the century the population will increase by over 30 million, with half the increase occurring in urban areas. Pakistan's economic growth performance has been fairly impressive during the last decade when the GDP growth rate averaged 6%. Recent economic growth, however, has been accompanied by large and growing macroeconomic imbalances which could seriously affect future growth. Pakistan also performs very poorly in its human development indicators, which could prove to be an important long-term constraint.

1.2 The North-West Frontier Province (NWFP) had a population of about 16 million in 1991, making it the third largest province in Pakistan. Nearly 84% of the population is rural, although urban areas grew faster than rural areas (4.6% versus 3.5%) between 1981 and 1991. Urban population growth has resulted from natural growth, migration, and the reclassification of large rural settlements as urban areas. As of the 1981 census, only two cities (Peshawar and Mardan) exceeded 100,000 persons. Six other localities had populations between 50,000 and 100,000. In physical terms, NWFP is Pakistan's smallest province, occupying less than a tenth of Pakistan's total area. It has a diverse topology ranging from scenic mountains and valleys in the north and west to lowlands converging on the Indus River in the east. The Khyber Pass, which links NWFP to Afghanistan near Peshawar, has in recent times served as a major conduit for refugees. In 1992, about 2.5 million of the estimated 3.3 million refugees living in Pakistan resided in NWFP or the adjacent Federally Administered Tribal Areas.

1.3 The distribution of shelter-related infrastructure facilities in NWFP differs substantially from that of the rest of the country[2/]. Over a third of all households in NWFP rely on wells as a primary source of drinking water, about three times the national average of 11.5%. In addition, nearly 22% of NWFP households rely on sources such as ponds, rivers, streams and springs, compared to only 9.5% of the country as a whole. Almost all urban and two-thirds of rural housing units have access to electricity. Only 4% of all households have access to gas, about half the national rate of 9%. Compared to other provinces, dwellings in

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1/ 1990 estimate. The estimated population in 1993 was approximately 120 million.

2/ Based upon 1989 Sample Housing Survey.

rural areas are much more likely to have private kitchens, bathrooms, and latrines. Half of rural units have separate latrines -- over twice the national average. This is consistent with cultural values that emphasize privacy and is evidence of the high demand for such facilities. About 87% of urban dwellings in NWFP have separate latrines -- a figure comparable to the national average of 84% -- but only 42% of these have flush capability as opposed to 70% nationally. This indicates a lack of well developed urban sanitation systems. Informal surveys have documented major problems with access, drainage, sewerage, and solid waste disposal. For example, even in areas where flush latrines are connected to sewers, the local networks often empty into neighboring fields without treatment. Filthy ponds and solid waste accumulating in streets and vacant lots are familiar sights in many communities. Unsurfaced roads and footpaths that become impassable during the rainy season are common.

1.4 Throughout Pakistan, home ownership rates are high by international standards, and about 89% of all units are owned. In NWFP, the rural home ownership rate is around 90%, about the national average, but the urban home ownership rate is only about 66%, the lowest of any province. Urban renters, who occupy 28% of urban dwellings, are more likely than owners to draw their drinking water from a piped source outside the unit, to use kerosene for cooking, and to lack a kitchen. The additional 6% of urban households who occupy their units rent-free are far more likely than owner households to rely on wells outside their units for drinking water (22% versus 4%), to use dung-cake, wood, and other (non-gas, non-kerosene) sources for cooking, and to lack kitchens, bathrooms, and latrines.

B. Infrastructure Sector Organization

1.5 There are many institutions directly and indirectly involved in infrastructure development including federal and provincial government agencies, non-governmental organizations (NGOs), community-based organizations (CBOs), the informal private sector and individuals.

1.6 Federal government, through the Planning Commission, is responsible for five year plans and annual allocations for the physical planning and housing sector. The Ministry for Housing and Works is responsible for sector policy formulation, although preparation of particular policy statements may be undertaken by its specialist agencies, such as the National Housing Authority (NHA) which was instrumental in the recent revision of the National Housing Policy. NHA is also responsible for preparation of plans and programs for low cost housing. Utilities such as the Water and Power Development Authority (responsible for electricity generation and distribution) and Sui Gas are national entities.

1.7 Provincial agencies involved in the infrastructure sector in NWFP include the Local Government, Elections and Rural Development Department (LGERDD), the Planning, Environment and Development Department, the Finance Department, the Public Health Engineering Department (PHED), and the Provincial Urban Development Board (PUDB). The Planning, Environment and Development Department coordinates development activities, finalizes annual development programs and approves projects. LGERDD supervises the working of local councils. It also executes a rural development program mostly consisting of small infrastructure schemes. PHED is responsible for development of water supply and sewerage

schemes and, due largely to difficulties in handing over schemes to local councils or communities, has increasingly taken on operation and maintenance functions. The PUDB heads the six Development Authorities in the province, and has been assigned the tasks of integrated urban planning. Development Authorities execute provincially-funded development projects, undertake works on behalf of other entities, and construct sites and services schemes. There are 48 urban local councils and 19 rural district councils in NWFP. The local councils are autonomous bodies that operate under the 1979 Local Government Ordinance, managed by an elected mayor and council members. Local councils, especially in smaller cities, have poor administrative, managerial, and technical skills, and are presently being run by appointed administrators rather than elected council members.

1.8 Working at the community level, UNICEF[3/] has been active in developing small-scale infrastructure schemes (e.g., hand pumps) and in providing health and sanitation education. NGOs and CBOs have also contributed directly and indirectly to infrastructure development. Pakistan is home to several successful community approaches to infrastructure provision. In Northern Areas, the Agha Khan Rural Support Program (AKRSP) has demonstrated techniques for developing infrastructure through community approaches. Although the objective of AKRSP is to increase per capita income of beneficiaries, its methodologies which include village organization, partnership agreements, regular savings with collective banking, and creation of women's organizations have broader application. Spin-off organizations in NWFP have been active in disseminating lessons based on the AKRSP experience with community-based development. The Orangi Pilot Project (OPP), located in Karachi, Sindh, is based in the country's largest squatter colony where 900,000 people live. OPP's major activities include housing, water and sanitation, and these programs have been undertaken independently of government. The sanitation program, which now covers about two-thirds of the area, has developed community mobilization techniques, appropriate technologies, and full beneficiary financing of on-site capital and operation and maintenance costs. It has also been used as an entry point for various other programs. Some of the benefits of OPP have been restricted by the limited cooperation between OPP and government agencies, but recently this aspect is being better addressed. Through its outreach efforts, OPP has strongly influenced decision makers throughout the country and is recognized as one of the world's best examples of successful community-based infrastructure development.

1.9 The private sector, particularly the informal sector, has been the primary driving force behind housing development. Housing is usually built incrementally, by hired labor, as finances permit and as needs change, and the majority of low-income housing in NWFP has been developed in this way. Unlike other provinces, squatter settlements and katchi abadis are rarely found in NWFP, due in part to strong traditional ties to land, and development has typically been through sub-division and sale of private land. The process is dynamic, and despite high population growth, the number of persons per room fell during the 1980s, from 3.6 to 3.4. This reflected the substantial growth in housing units with more than one room, which increased as a percentage of the total from 50% to 67% during the period.

3/ United Nations International Children's Educational Fund.

C. Sector Constraints

1.10 Although a dynamic source of new housing, informal private sector development is usually undertaken without reference to official planning and building regulations, and services are rarely provided at the time of development. As a result, basic infrastructure provision in low-income community areas is typically very inadequate.

1.11 Government's response to this shortcoming has been limited by a number of factors including:

(a) institutional arrangements in which responsibilities overlap, and which do not encourage inter-agency cooperation;

(b) financial constraints, and lack of a clear policy framework for dealing with such issues as cost recovery, infrastructure standards, subsidies, and targeting of beneficiaries;

(c) failure to effectively operate and maintain existing infrastructure, partly due to financial constraints, partly due to institutional weaknesses, and partly due to an unwillingness to accept operation and maintenance responsibility for works completed by other government entities; and

(d) lack of provisions for directly involving communities in infrastructure projects.

1.12 The international donor community has sometimes compounded problems by poorly coordinating its efforts and by adopting inconsistent policies, although the development of IDA's Social Action Program Project (Credit 2593-PAK) should help to address some of these shortcomings.

D. Bank Group's Experience in Infrastructure and Upgrading

1.13 The International Development Association (IDA) has financed nine infrastructure projects in Pakistan, four in Lahore, four in Sindh (of which three in Karachi), and a rural water supply and sanitation project in Azad Jammu & Kashmir, Sindh, and Balochistan. This would be the first infrastructure project in NWFP involving IDA.

1.14 Following two earlier water and sanitation projects, the multi-sector Lahore Urban Development Project (Credit 1348-PAK) included a component for infrastructure upgrading which was completed successfully. The ongoing Punjab Urban Development Project (Credit 1895-PAK) contains further upgrading components. The components in Lahore are proceeding satisfactorily and are 75% complete. The upgrading has improved access to basic infrastructure for a substantial number of Lahore's poorer citizens, has leveraged additional private investment to further improve living conditions, and has demonstrated several innovative designs which are now being replicated in other projects throughout Pakistan. Nevertheless, cost recovery, and

the transfer of completed assets for operation and maintenance have proved difficult, and the lack of a structured form of community participation may have contributed to these problems.

1.15 Four credits have been made in Sindh, two for water supply and sewerage and two for urban development. The Karachi Special Development project (Credit 1652-PAK) included a component for infrastructure upgrading in low-income areas, but implementation, particularly with regard to cost recovery, was uneven due to poor organization and weak management. Appropriate infrastructure standards, however, are beginning to be adopted by the concerned government agencies.

1.16 The Sindh Special Development Project (Cr. 2558-PAK) is underway in Sindh. This project includes environmental and transport upgrading, environmental impact assessment of Korangi industrial area, a series of policy and administrative reforms including adoption of adequate environmental standards, and preparation of engineering studies for future infrastructure improvements and environmental upgrading in the province through community involvement. The project has been in implementation for the last 16 months and shows that it would improve the environmental and health conditions of the low-income urban population, land values in the upgraded areas, and establish communal treatment facilities for effluent streams of different industrial areas.

1.17 The Rural Water Supply and Sanitation Project (Credit 2228-PAK) is underway in Azad Jammu and Kashmir, Sindh, and Balochistan. This project includes the construction of new, community-managed, water supply and sanitation schemes supported by a program of institutional strengthening, policy reform, and innovative resource mobilization. This project has experienced delays and is demonstrating the difficulties of government working effectively with communities. In particular, re-orienting the traditional engineering focus of provincial line departments towards recognition of the role of communities is proving difficult.

1.18 The main lessons learned from Bank Group experience, from analysis of Project Completion Reports and from OED evaluations of infrastructure upgrading in other countries are: (a) upgrading programs that can readily adapt to unforeseen needs or circumstances fare better than one-size-fits-all programs; (b) community participation can facilitate project implementation especially with regard to identifying needs and mobilizing resources; (c) reducing infrastructure standards is a direct means of improving project affordability; (d) cost recovery and satisfactory operation and maintenance present major challenges; and (e) successful projects build upon the strengths of existing institutions.

II. THE PROJECT

A. Project Origin and Ownership

2.1 The Bank's Shelter Sector Review (Report 7214-PAK, June 1989), and subsequent sector analysis and project identification by the National Housing Authority (assisted by consultants financed by the Swiss Development Cooperation (SDC) and the Japanese Policy and Human Resource Development Fund and administered by the World Bank) has prompted a rethinking of approaches to solving shelter problems of low-income communities in Pakistan. The focus has shifted away from the government's earlier approach of constructing and financing serviced plots and new homes, towards improving basic infrastructure in low-income areas.

2.2 Past investments in serviced plots have not tended, despite substantial subsidies, to serve low-income groups, and plots have also frequently remained unutilized for many years after completion, further diminishing the effectiveness of this approach. The analysis of sector constraints has highlighted the need to upgrade the infrastructure in low-income areas, but illustrates that this needs to be in a manner which creates affordable and sustainable investment programs, and establishes effective operation and maintenance (O&M) arrangements.

2.3 In seeking to address the infrastructure needs of low-income communities, NHA and GONWFP have examined the approaches to infrastructure development and upgrading adopted by NGOs and the informal sector. Earlier experience in NWFP of upgrading projects without community involvement in scheme planning and design has demonstrated the difficulties which can arise with transfer of completed infrastructure for O&M. GONWFP has therefore attempted to identify ways to actively work with and facilitate communities. Following project preparation studies, managed by its Project Management Unit (PMU), new policies and approaches have been tested in two pilot projects, with works financed by GONWFP and executed by community self-help. Early results indicate an improved level of beneficiary satisfaction, with increased "ownership" of the infrastructure created. These efforts have culminated in the formulation by government of a radically different policy framework for infrastructure upgrading (para. 2.5), which it proposes to implement through this project, and which demonstrates a commitment by government to changing past practices.

B. Objectives

2.4 The project's objective would be to increase the productivity and well being of low-income groups in NWFP through improving their living conditions by provision of basic infrastructure and community development. This would be achieved by: (a) infrastructure upgrading and community development in existing urban and rural low-income settlements; (b) promoting the use of demand-driven, participatory design procedures and affordable standards for infrastructure; (c) strengthening the ability of provincial and local governments to collaborate with communities to implement low-income infrastructure programs; and (d) promoting sustainable arrangements for O&M of basic services.

C. Policy Framework

2.5 GONWFP has formulated a project policy framework to achieve these objectives as follows:

(a) the project would provide integrated physical, social and economic infrastructure to low-income communities in selected urban and rural areas of NWFP;

(b) the project would give priority to those communities which demonstrate commitment through their capacity for social organization and financial contributions;

(c) communities, organized into CBOs or user committees, would participate in and be jointly responsible for the design, preparation, and implementation of infrastructure services and would be fully responsible for subsequent O&M;

(d) infrastructure would be developed according to planning, design and construction standards suited to and affordable by the communities concerned, and local infrastructure would be supported by primary infrastructure as necessary to ensure its efficient and effective operation;

(e) communities would contribute any land required and at least a 20% share of the capital cost of infrastructure (other than primary infrastructure), plus 100% of O&M costs; and

(f) local councils would contribute a 10% share of the capital cost of infrastructure (other than primary infrastructure).

2.6 The project would provide integrated physical, social and economic upgrading in accordance with this policy framework whereby Project schemes would be selected through demand-driven participatory procedures.

2.7 Consistent with this policy framework, schemes would be prepared through a process featuring collaboration between government and communities which would comprise: (a) community mobilization, awareness training and project identification; (b) community participation in project preparation and design, with engineering design assistance from government; (c) contribution of cost shares; (d) implementation of infrastructure and community development activities; and (e) handover of completed assets and O&M.

D. Rationale for IDA Involvement

2.8 This project is consistent with the Country Assistance Strategy (CAS) discussed on December 19, 1995. A primary objective of the CAS for Pakistan is poverty reduction. The focus of this project upon low-income communities would directly assist achievement of this objective by increasing the coverage and quality of basic infrastructure which, together with

community development programs, would improve living conditions and alleviate some of the acute symptoms of poverty. Community development and participation are anticipated to improve the selection, design, implementation and O&M of schemes, and thereby improve the efficiency and effectiveness of public-sector infrastructure investments, which is a further CAS objective. IDA's experience in Pakistan demonstrates that infrastructure upgrading is one of the most effective ways of providing basic services to low-income groups. The Bank's urban policy and housing policy papers both support upgrading as a strategy to increase the access of the poor to infrastructure and housing to meet their basic needs.

2.9 IDA has administered trust funds (para. 2.1) which, inter alia, led to the identification of this project, and has financed a Project Preparation Facility (PPF 761-0 PAK) to complete its preparation, including the refinement of community participation mechanisms and the monitoring of the two pilot projects. IDA's continued involvement would allow the possibility of retroactive financing for further community mobilization work, to keep up the momentum achieved during preparation and to reduce delays after project effectiveness. IDA's contribution would include its wide international experience of community infrastructure upgrading, the knowledge gained from its previous upgrading work in Pakistan, and the continuation of effective working relationships built up during project preparation. IDA's sector experience, reflected in the project design, would encourage local council and community participation, affordable infrastructure standards, flexible planning and "learning by doing" through phased schemes with repeat, follow-up operations. IDA's involvement would also facilitate maintaining an emphasis on obtaining cost recovery contributions.

E. Description

2.10 The project would comprise two components in support of low income communities. The major component is community infrastructure, which is about 90% of project costs, and consists of three sub-components: infrastructure upgrading, community development, and design and implementation assistance. The other component is institutional development, including sub-components for LGERDD and NHA. The project would cost about Rs 1,332 million (US$38.8 million equivalent).

2.11 A detailed description of the community infrastructure (CI) project components is given in Annex 1. The various components of the project are summarized below.

2.12 Community Infrastructure (US$28.7 million base costs)

(a) Infrastructure Upgrading (US$21.5 million base costs). Upgrading of basic infrastructure would be carried out in approximately 55 urban and rural communities covering a total of about 3,500 hectares with a total population of approximately 420,000. Infrastructure priorities would be established in consultation with the communities through their CBOs. Communities would participate in the design and implementation process, financing and subsequent O&M of the infrastructure provided. Together with the physical investments, training of communities would be carried out, to include health, hygiene and sanitation programs incorporating continuing integrated support by UNICEF. Infrastructure to be provided would

include water supply, stormwater drainage, flood protection, streets and footpaths, sanitation and solid waste management. Other types of infrastructure, for example community facilities or economically productive infrastructure such as markets could be considered if identified as a community priority. In addition to the basic local (secondary and tertiary) infrastructure, trunk infrastructure required to ensure that community infrastructure functions efficiently would also be included. Improvement of land registration facilities and documentation would be provided when requested by the community. The range of project-financed options from which communities may choose would depend on their level of need as determined by community and engineering surveys, standards would be subject to minimum and maximum limits, and cost ceilings would apply (para. 3.16). Individual schemes would be likely to take up to three years to implement but could be implemented more quickly dependent on annual levels of contribution from the communities. Implementation of the component would be phased over five years based on a conservative assessment of the annual affordability of the respective communities. Based upon the pilot communities that have been upgraded so far, and the further 12 communities in Phase 1A that have been designed in detail in consultation with local residents, the main initial priorities for infrastructure are likely to be access and drainage, with water supply and solid waste management also requested. In view of the poor "sanitation" conditions prevailing in almost all sites, and with the proposed emphasis on health and hygiene education during the project, on-plot sanitation is anticipated to become a high priority component in later phases of the project, which would provide about 25% of the approved cost of a facility as an incentive grant to the beneficiary.

(b) Community Development (US$1.5 million base costs) This would include: (i) community mobilization/capacity building including information campaigns, CBO formation, orientation and training activities for community action planning, and for government line departments, NGOs and project staff in participatory planning and implementation; (ii) health and hygiene awareness campaigns including orientation and training of health and volunteer workers using participatory approaches, and support to hygiene and sanitation education in schools; and (iii) support to women and children which would include action research and demonstration activities to enhance participation of women and young children in project activities in three selected communities before wide-scale implementation. Services would be provided by UNICEF, NGOs and direct contracting.

(c) Design and Implementation Assistance (US$5.7 million base costs) Rather than substantially increasing its staff to implement the project, government would engage consultants, contract staff and NGOs in addition to appointing incremental staff. The component comprises:

(i) the establishment or strengthening, equipping and operation of CI Directorates within PMU in Peshawar, and Project Implementation Units (PIUs), mostly located at divisional headquarters. All costs are being treated as project investment costs (i.e. salaries and allowances of government staff, recurrent operating costs and equipment); however only staff and operating costs in an

amount equivalent to approximately the first two years expenditure, vehicles and equipment would be eligible for IDA Credit financing;

(ii) consultants' services for: (a) assistance with community mobilization, infrastructure planning and design; (b) assistance in establishing systems and procedures for, inter alia, project management, procurement, construction supervision, contract management, project monitoring and reporting, documentation, project accounting, and management of project finances; and (c) training of Government staff, NGOs and communities as appropriate; and

(iii) the contracting, through the consultants team, of locally based NGOs/social organizers as extension teams to assist the CBOs at the community level. Social organizers' (SO) teams comprising one male and one female SO would assist the government's 14 social organizer coordinators. Expenses of community motivators would also be paid.

2.13 Institutional Development and Project Preparation (US$3.2 million base costs). This would include studies and technical assistance for provincial and federal government sector institutions, and makes allowance to refinance the project preparation facility (PPF).

(a) LGERDD Study (US$0.5 million base costs) This study would review the department's role, functions, responsibilities, and legal mandate; structure and staffing; systems and procedures; and strengthening needs. It would examine related functions and responsibilities of other departments to identify possible areas of overlap, identify options for reassignment of functions and make recommendations for government's consideration. It would also recommend arrangements for institutionalizing the PMU's community infrastructure functions. The study would consider measures and arrangements required to strengthen District Councils, to complement various recent works on strengthening municipal local government, and would determine a development strategy and implementation plan for strengthening local councils.

(b) NHA Technical Assistance (US$1.3 million base costs) Institutional development which would comprise technical assistance for: (i) data analysis and sector monitoring; (ii) shelter program monitoring; (iii) program evaluation and dissemination; (iv) building technology evaluation and dissemination; (v) information exchange; (vi) organizational support; and (through the Ministry of Housing and Works or NHA, as appropriate) (vii) policy development.

(c) Project Preparation (US$1.3 million) This sub-component would finance the current PPF being implemented by NHA.

2.14 Key project implementation and outcome/impact monitoring indicators that would form the basis for review, supervision and evaluation are:

Implementation Indicators

(a) number of CBOs formed and registered;
(b) infrastructure layout plans agreed;
(c) community development programs agreed;
(d) availability of beneficiary contributions and counterpart funds;
(e) community training undertaken; and
(f) user group/household participation in O&M.

Outcome/Impact Indicators

(g) proportion of households having access to infrastructure services;
(h) adoption of affordable standards for infrastructure upgrading;
(i) unit cost of infrastructure schemes completed;
(j) proportion of facilities in working condition;
(k) new/alternative development activities initiated by communities; and
(l) changes in Governments' attitude to collaboration with communities.

F. Project Costs

2.15 The total cost of the proposed project, including physical and price contingencies, is estimated at US$38.8 million equivalent, of which taxes and duties amount to US$1.6 million equivalent. Summary estimates are given in Table 2.1 and detailed estimates are given in Annex 2. Full details are contained in the project file. The foreign exchange component is estimated at US$14.9 million equivalent or 38% of total project costs.

2.16 The base cost estimates reflect price levels in January 1995. The infrastructure cost estimates have been based on detailed engineering designs for 14 communities in Phase 1A, extrapolated on an areal basis to include the remaining communities assuming a balanced package of improvements. Unit costs are based on market rates of labor and material for civil works carried out in NWFP. Estimates for materials, equipment, vehicles and technical assistance have been based on recent quotations from suppliers, market surveys of manufacturers, and contracts. Physical contingencies of 15% on civil works, 10% on equipment, materials and services, and 5% on vehicles and technical assistance have been allowed, the contingency for civil works reflecting that estimates are based on detailed designs for 14 of the 55 communities.

2.17 Price contingencies and foreign exchange conversions have been calculated in accordance with Bank guidelines, using World Bank estimates prevailing at the time of appraisal. Foreign inflation rates are estimated as 2.8% for the calendar year 1995, and about 3.3% annually thereafter. Domestic annual inflation is estimated to be 6% for calendar year 1995 and annually thereafter. For the purposes of converting January 1994 base costs to January 1995 values, the Bank's projected increase in domestic retail prices of 13.2% has been used. Price contingencies amount to 18% of the total estimated project rupee cost. Estimated exchange rate parities between US dollars and Pakistan Rupees result in an average Rs. 34.5 per US dollar.

Table 2.1: SUMMARY COST ESTIMATES

	Pak Rupees Million			US $ Million				
	Local	Foreign	Total	Local	Foreign	Total	% Forex	% Tot. Base Cost
A. CI Primary Infrastructure								
1. Land	8.7	0.0	8.7	0.3	0.0	0.3	0	1
2. Trunk Infrastructure	137.2	112.2	249.4	4.3	3.5	7.8	45	25
Sub-Total	145.9	112.2	258.2	4.6	3.5	8.1	43	25
B. CI Local Infrastructure								
1. Access and Circulation	100.9	67.3	168.1	3.2	2.1	5.3	40	17
2. Water Supply	22.8	18.7	41.5	0.7	0.6	1.3	45	4
3. Drainage	79.9	43.0	123.0	2.5	1.4	3.9	35	12
4. Sanitation	56.8	30.6	87.4	1.8	1.0	2.7	35	9
5. Solid Waste Management	5.8	2.0	7.8	0.2	0.1	0.2	25	1
Sub-Total	266.3	161.5	427.8	8.4	5.1	13.4	38	42
C. CI Community Development								
1. Comm. Mob./Capacity Bldg.	10.7	3.1	13.8	0.3	0.1	0.4	22	1
2. Health & Hygiene Awareness	19.7	4.7	24.3	0.6	0.1	0.8	19	2
3. Women & Child Support	7.4	0.8	8.3	0.2	0.0	0.3	10	1
Sub-Total	37.8	8.6	46.4	1.2	0.3	1.5	18	5
D. CI Design & Technical Assistance								
1. Technical Assistance	57.9	19.3	77.2	1.8	0.6	2.4	25	8
2. Other Implementation Support	88.4	17.1	105.6	2.8	0.5	3.3	16	10
Sub-Total	146.3	36.5	182.8	4.6	1.1	5.7	20	18
E. Institutional Development								
1. Local Government Dept.	4.2	12.7	17.0	0.1	0.4	0.5	75	2
2. National Housing Authority	13.3	28.7	42.0	0.4	0.9	1.3	68	4
Sub-Total	17.6	41.4	59.0	0.6	1.3	1.9	70	6
F. Project Preparation								
1. Project Preparation Facility	10.1	31.7	41.7	0.3	1.0	1.3	76	4
Sub-Total	10.1	31.7	41.7	0.3	1.0	1.3	76	4
Total BASELINE COSTS	**624.1**	**391.8**	**1,015.9**	**19.6**	**12.3**	**31.9**	**39**	**100**
Physical Contingencies	73.2	46.1	119.3	2.3	1.4	3.7	39	12
Price Contingencies	125.0	71.6	196.6	2.0	1.1	3.1	37	10
Total PROJECT COSTS a/	**822.2**	**509.6**	**1,331.8**	**23.9**	**14.9**	**38.8**	**38**	**121**

a/ Including taxes and duties of US$1.6 million equivalent

Note: Some items may not add up to totals due to rounding.

G. Financing Plan

2.18 The proposed IDA credit of US$21.5 million equivalent would finance about 55% of project costs, covering 93% of foreign exchange and 32% of local currency requirements. Swiss Development Cooperation (SDC) co-financing of US$3.4 million equivalent[4/] would finance 9% of project costs, and UNICEF would provide parallel financing of about US$0.5 million (1%). Federal government (1%), provincial government (16%), beneficiary communities (8%), households participating in on-plot sanitation schemes (7%) and local councils (3%) would finance the balance. The project financing plan is summarized in Table 2.2 below.

Table 2.2: PROJECT FINANCING PLAN

	Local	Foreign	Total	%
	---------(US$ Million)---------			
GoPakistan	0.3		0.3	1
GoNWFP	6.1		6.1	16
Beneficiary Communities	3.0		3.0	8
Households (on-plot sanitation)	2.6		2.6	7
Local Councils	1.4		1.4	4
SDC	2.4	1.0	3.4	9
UNICEF	0.5		0.5	1
IDA	7.6	13.9	21.5	55
Total	23.9	14.9	38.8	100

2.19 The proposed flow of funds is shown in Annex 6. The IDA credit would be made available to GOP on standard terms. Of the US$2.0 million equivalent for the PPF and federal component, US$0.7 million would be passed to NHA through normal budgetary procedures. The balance of the credit, US$19.5 million equivalent, would be provided to GONWFP by GOP in accordance with its standard procedures, and credit proceeds and counterpart funds would be made available to the implementing agencies through budgetary allocations using existing procedures.

2.20 A condition of Credit effectiveness would be that all conditions for effectiveness of the Swiss Contribution agreement, other than those related to Credit effectiveness, had been fulfilled (para. 6.2). UNICEF's contribution would be provided partly through its Urban Services allocation and partly through other programs being implemented by GONWFP counter parts. As these programs are ongoing, the availability of UNICEF's financing would not be a condition of Credit effectiveness.

4/ SDC has made an initial commitment of US$3.45 million equivalent for the first 3 years of the project. It would consider providing further funding after 3 years if required, subject to satisfactory progress.

III. PROJECT IMPLEMENTATION

A. Implementing Agencies

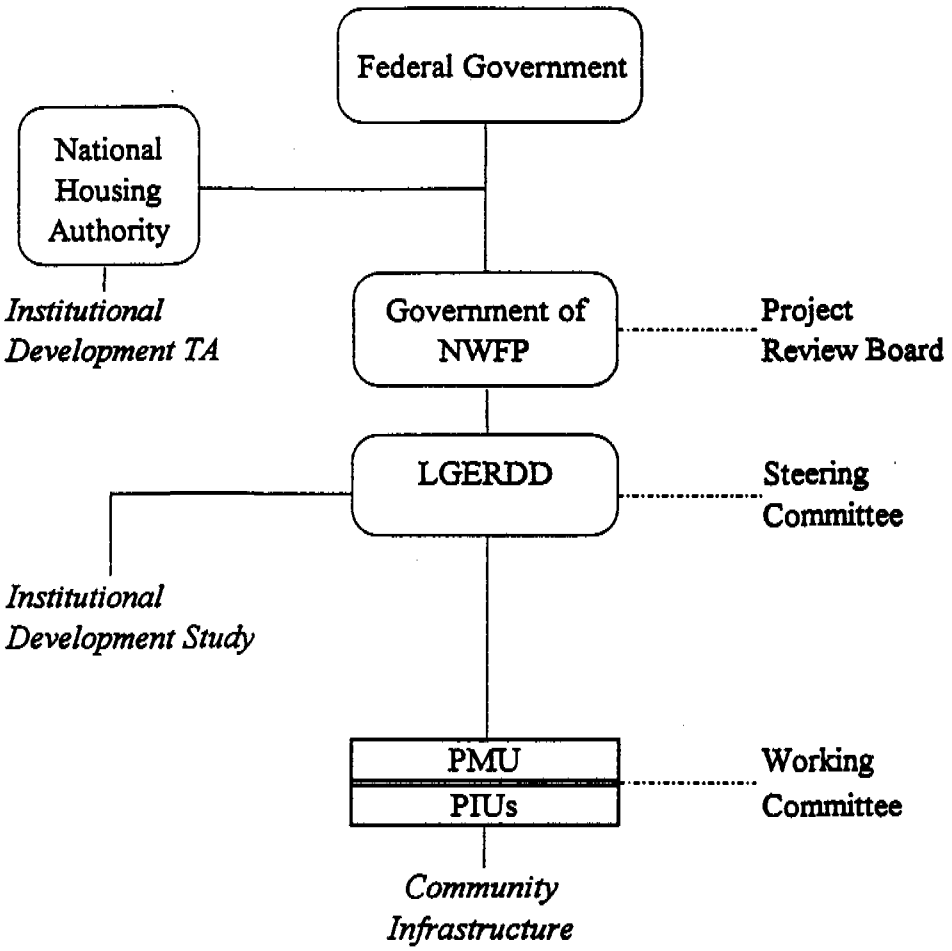
Implementing Agencies and Responsibilities

3.1 The institutional responsibilities for project implementation are shown below:

COMPONENT	AGENCIES
Community Infrastructure	
Overall responsibility	LGERDD
Policy guidance and inter-agency coordination	Steering Committee
Infrastructure Upgrading	PMU/PIUs/CBOs
Community Development	PMU/PIUs/UNICEF
Design and Implementation Assistance	PMU
Institutional Development	
LGERDD Study	LGERDD
NHA Technical Assistance	NHA
Top Level Project Oversight	
National aspects	NHA
Provincial aspects	Project Review Board

3.2 Institutional relationships are shown in Figure 1. At federal level, NHA, an arm of the Ministry of Housing and Works, is responsible for national sector policy advice, and would be involved in project evaluation. At provincial level, GONWFP would create a Project Review Board, under the Additional Chief Secretary, Development, for top-level project oversight and coordination, and a Steering Committee for CI policy guidance and inter-agency coordination. LGERDD, which would be responsible for CI, is the provincial government department responsible for coordinating and supervising the local government system. Its functions include administrative oversight of local councils, provision of senior grade officers and training for councils (through the Local Council Board), implementation of infrastructure development schemes in rural areas, and management of provincial and local elections. PMU, which would assist LGERDD with CI, was established in 1989 to design and implement the Asian Development Bank's Second Urban Development Project, and also has responsibilities for infrastructure project preparation (including for this project).

Figure 1: Implementation Arrangements



3.3 Owing to LGERDD's close links to local councils, GONWFP has proposed that it would be the appropriate department within provincial government to be responsible for CI, reflecting the localized nature of CI investments, the need for involvement by local councils, and the possible continuing role of local councils in O&M. LGERDD however has a very limited technical capacity, and has little previous experience of donor-funded projects. Furthermore, LGERDD would need additional powers to address the inter-departmental aspects of CI. Accordingly, LGERDD would be assisted with its responsibility for CI as follows:

(a) policy direction for CI would be provided by a multi-sectoral Steering Committee, chaired by the Secretary LGERDD, reporting to a Project Review Board under the Additional Chief Secretary, Development; and

(b) PMU would provide the technical resources and capacity for planning, design, implementation and day-to-day project management of the CI component.

3.4 The planning, finance, public health, and physical planning departments would each be represented on the Steering Committee, and PMU would be a member and Secretary. In addition to policy guidance, the committee would be responsible for approval of individual

community schemes, inter-agency coordination and monitoring of progress. The Steering Committee would be assisted by a Working Committee. GOP confirmed at the negotiations that GONWFP would establish by September 30, 1996 and thereafter maintain with membership, responsibilities and resources satisfactory to the Association, a Project Review Board, a Project Steering Committee, and a Project Working Committee (para. 6.1).

3.5 GONWFP has selected PMU to provide CI technical support primarily due to PMU's demonstrated project planning and implementation capacity, and due to PMU's lead role in preparation of the CI component[5/]. Although initially established under the Provincial Urban Development Board, it has been agreed that PMU would report to LGERDD on CI matters. PMU's existing structure comprises a central organization based in Peshawar, and decentralized PIUs located at divisional headquarters. This would be augmented for the purposes of the project by establishing within PMU a Planning and Community Development Directorate, a Design and Implementation Directorate, a Deputy Director Monitoring and Evaluation and a Finance Wing, reporting to the Director General (DG). The DG would have responsibility for CI in addition to his existing responsibilities for the Second Urban Development Project. Both Directorates would work with and through the existing PIUs for day to day implementation, and these would be strengthened to include Social Organizer Coordinators and an Assistant Director Implementation for CI. GOP confirmed at negotiations that GONWFP would, exclusively for the purpose of undertaking the Project: (a) establish and thereafter maintain with staff, responsibilities and resources satisfactory to the Association, Directorates of the Project Management Unit for Planning and Community Development, Design and Implementation, Monitoring and Evaluation and a Finance Wing; and (b) strengthen Project Implementation Units and thereafter maintain them with staff, responsibilities and resources satisfactory to the Association (para. 6.1).

3.6 Implementation of individual schemes would be undertaken with active participation of communities. Contact with community groups, and assistance to them, would be channelled through locally-based social organizer teams provided by NGOs or by appropriately qualified local individuals engaged as contract staff. CBOs would be responsible for assisting in the planning, design and implementation of schemes. This would include having a role in procurement of civil works (which would be mostly undertaken by private contractors--although provision is made for an element of community-executed work), contract supervision and contract management. Communities would be responsible for O&M.

3.7 With a view to institutionalizing procedures for future replication, consideration would be given, for the longer term, to full incorporation of PMU's CI functions within LGERDD, together with transfer of experienced staff. Options would be reviewed as part of the project-

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5/ PMU was established in 1989 as the key agency for preparation and implementation of the Asian Development Bank's Second Urban Development Project (SUDP), which includes an upgrading component. Under the project, PMU has demonstrated a capacity for project management, planning and design, engineering, finance, accounting and administration. It has also shown flexibility and interest in involving communities in project implementation, based in part upon its experiences in implementing the SUDP upgrading component. It has been the lead agency in NWFP for project preparation, and has been instrumental in proposing increased community participation to include involvement in planning, design and O&M. In addition to developing an in-house capacity for project management, PMU has demonstrated its ability to make effective use of consultant services for project preparation, studies and implementation assistance.

financed LGERDD institutional development study, with the intention of commencing implementation of an action plan about mid-1998.

3.8 In conjunction with the infrastructure upgrading, UNICEF would provide integrated training in community liaison techniques, health and sanitation education, and linkages to on-going UNICEF-assisted programs, through its NWFP office in Peshawar.

3.9 Project agencies are reviewed in detail in Annex 3.

B. Implementation Strategy

3.10 The CI component would be implemented in three phases over five years. This phasing would be in order to gradually develop project management, community mobilization and implementation capacities, and in order to provide, at the end of each phase, further opportunity for review and adjustment of modalities with the benefit of experience, prior to the next phase. Phase 1 would include 20 communities located in 7 urban and 13 rural areas. Phase 2 would comprise 27 communities, anticipated to be 12 urban and 15 rural, and Phase 3 would accommodate about 8 additional communities. GOP confirmed at negotiations that: (a) GONWFP would implement the Project in accordance with an implementation plan satisfactory to the Association; and (b) GONWFP would by January 31, 1997 and by each January 31 thereafter review and update the implementation plan in accordance with procedures satisfactory to the Association (para. 6.1).

3.11 The initial stage of implementation would focus upon: (a) strengthening PMU's and LGERDD's institutional capacity; (b) monitoring and building upon the experience of the community infrastructure schemes already underway in NWFP (two pilot schemes would be complete, plus schemes in up to 6 sites would be started using retroactive finance); and (c) a gradual implementation of the remaining Phase 1 sites in a staged sequence of 6 to 8 sites each. Preparation of Phase 2 sites, in two batches, would start in the second year of the project. To facilitate the timely development of institutional capacity, the design and implementation assistance consultants for community infrastructure have been selected. It was agreed at negotiations that a condition of effectiveness would be the appointment of the Director Planning and Community Development, Director Design and Implementation, Deputy Director Monitoring and Evaluation, Deputy Director Finance, Assistant Directors PIU and the design and implementation consultants for community infrastructure (para. 6.2). Other staff, including staff at PIUs, would be assigned in accordance with the requirements of the implementation schedule. The initial period of CI implementation would include further training and orientation of project staff on project concepts and participatory approaches. A detailed implementation schedule is shown in Annex 5.

3.12 It is expected that infrastructure development in most communities would be phased over a number of years, reflecting a gradual development of CBOs' capacity, communities' priorities, and affordability constraints. Furthermore, each scheme would have a development cycle of identification, preparation, implementation, and operation (See Annex 4). As a result, it is expected that to complete the upgrading of a locality could take two to three years. Activities to be undertaken at the various stages of the development cycle include:

(a) Identification (3 months) for (i) identification and selection of sites according to project criteria and preliminary data; (ii) confirmation visits to sites; and (iii) initial visits to communities and contacts with local leaders. The output of this stage is a list of eligible sites and a written request from the community to participate in the project.

(b) Preparation (6-9 months) for (i) promotion of project activities within the selected communities, including information and dissemination, orientation workshops and visits to other communities; (ii) mobilization and capacity building of CBOs including entry point activities such as health, hygiene and participatory education, and registration of the CBO under the Social Welfare Act; (iii) socio-economic surveys, jointly with the community, to establish needs, priorities and affordability; (iv) contacts with the local council and line departments concerned; (v) engineering visits and topographical survey; (vi) preliminary infrastructure design, assessment of O&M implications, costing, review with communities and confirmation of compliance with project criteria, adjustment of standards, phasing and prioritization; (vi) agreement of community development needs and priorities; and (vii) determination of implementation and O&M arrangements. The final output is a Community Action Plan (CAP) prepared with involvement of both the CBO members and PMU/PIU staff, comprising priority infrastructure improvements and community development programs, together with financing and O&M arrangements including commitments from the local council and, as appropriate, line departments.

(c) Implementation (up to three stages of 6-12 months each) which, following approval of the CAP, would involve implementation of community development programs, health and hygiene education, and infrastructure schemes. Initial activities would include skill and management training, resource mobilization by the CBO, and detailed engineering design by PMU. Implementation of civil works schemes would include procurement, construction by contractors or through community contract arrangements, supervision, contract administration, and O&M training. Final outputs for this phase are completed community development and hygiene education programs, completed infrastructure schemes and established arrangements for O&M, including community financing and responsibilities.

(d) Operation (3-6 months, with intermittent follow-up) for consolidation and adoption of assets/handover for O&M, further training, collection of user charges, continued health and hygiene and other community development activities, and monitoring and evaluation.

C. Status of Preparation

3.13 The major part of Phase 1A and 1B (18 communities) have been designed in detail following the establishment of CBOs and their participation in the planning and design process carried out by PMU and its consultants. The detailed engineering designs would be implemented over the first three years of the project. The project has been presented to each of the local councils involved in Phase 1, and they have indicated their support and willingness to participate which was confirmed at negotiations. Given the innovative nature of the project, pilot schemes have been

implemented, assisted by consultants, and preliminary work would be extended, through retroactive financing, to include up to six of the Phase 1 sites. Terms of Reference for major institutional strengthening consultancy assignments are finalized and the community infrastructure design and implementation consultants are selected. The Project PC-1 is approved by the Executive Committee of the National Economic Council (ECNEC).

D. Implementation Modalities for Community Infrastructure

3.14 Selection Criteria. Communities for Phase 1, and an indicative list of communities for Phase 2, have been pre-selected according to the following criteria[6/]. Eligibility of each community would be confirmed by LGERDD during the initial community mobilization process:

(a) low income;
(b) lack of basic infrastructure or GONWFP identified slum area;
(c) size of settlements above 3,000 persons;
(d) geographic spread across Province and urban/rural balance; and
(e) potential for community participation.

3.15 Sites where land tenure is found to be in serious dispute will be avoided. In addition, areas with a large number of renters or unstable tenant-landlord relationships will initially be avoided, until a better understanding is gained of the probability of renter displacement.

3.16 To be eligible for the project, schemes proposed by communities would need to satisfy the following requirements to demonstrate they are technically sound, ready for implementation, and economically and financially viable:

(a) Community and Local Council Participation and Contribution. The community must be prepared to organize themselves into CBOs or user committees, which are officially registered, broadly based and include representation of women in order to participate in the selection, design, and implementation of the infrastructure and, in particular, to contribute at least 20% up-front to the capital costs of the community infrastructure (excluding primary infrastructure costs) and to undertake all O&M. The local council must be prepared to contribute at least 10% to community infrastructure capital costs (excluding primary infrastructure costs).

(b) Resource Availability. Primary infrastructure must be available, or would be provided by the project. This provision would be subject to a separate technical and economic justification and feasibility analysis, prepared for review by IDA prior to scheme approval, if the primary infrastructure costs of any scheme exceed 50% of the gross cost limit per household (see below). Any land required must be in public or common ownership and available for use.

6/ Data limitations prevent systematically ranking settlements according to relative need. Accordingly, selection criteria concern minimum eligibility criteria instead of rankings.

(c) Environmental Sustainability. The environmental impact of schemes must be acceptable, and mitigating measures included where possible. Areas unsuitable for upgrading because of, for example, natural or environmental hazards, irregular terrain or difficult soil conditions would not be eligible. Resettlement, if any, must be in accordance with IDA's standard requirements (para. 5.10).

(d) Technical Viability. Schemes must demonstrate improvements benefitting the majority of households lacking service, endeavor to provide a balanced package of infrastructure elements, as costed at appraisal, conform with planning, design and construction standards suited to and affordable by communities, as agreed at appraisal, and have implementation arrangements consistent with proven capacities. Infrastructure sub-components would be designed as completely functioning systems.

(e) Economic Viability. Excluding the cost of primary infrastructure, the cost of schemes must fall below a cost limit[7/] of Rs 7,200[8/] per household net of community contribution (equivalent to a gross cost of Rs 9,000 per household), although communities would still be able to select a higher cost scheme by contributing full incremental costs. If gross costs exceed Rs 12,000 per household then data should be provided: (i) to indicate the source of incremental financing; and (ii) to reconfirm that the site conforms with the agreed selection criteria.

(f) Sustainability. The community must be aware of O&M consequences of schemes, and prior agreements should be in place for adopting completed infrastructure, for provision of O&M, and for O&M financing. Continuing O&M of earlier phases of project infrastructure must be satisfactory.

3.17 GOP confirmed at negotiations that GONWFP would cause PMU to ensure that infrastructure and community development schemes to be included in the project would be selected on the basis of criteria, and designed, financed, implemented and maintained through processes satisfactory to the Association (paras. 3.14-3.16).

3.18 Model Project Agreements. The key modalities for implementing the component would be documented in the following: (a) a CAP, which each community would prepare with assistance from PMU/PIUs, to provide the basis for scheme assessment and approval, and which would include a statement of the CBO's status, a justification of the need for a scheme, preliminary design of the proposed infrastructure and community development activities, environmental assessment, investment and O&M costs, a financing plan, a description of arrangements for collection and safekeeping of community contributions, and an implementation plan; and (b) a Memorandum of Understanding (MOU), which would detail the responsibilities for scheme implementation, management, financing and O&M, and which, following CAP approval, would be signed by the CBO, PMU and local council. Draft model agreements are available in the project file. GOP confirmed at negotiations that GONWFP would cause LGERDD/PMU, for each community

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7/ Assuming a balanced package of infrastructure elements - if fewer types of infrastructure are proposed, then cost limits would be reduced pro rata based on the average shares of various kinds of infrastructure.

8/ All cost limits are expressed in January 1, 1995 prices, and would be updated annually.

development scheme, to enter into an agreement with the concerned CBO and local council for financing, implementing and maintaining the scheme, on terms and conditions satisfactory to the Association (para. 6.1).

3.19 Responsibility for Procurement and Supervision of CI Civil Works. Management of procurement would be decentralized, according to responsibility for type of contract, and would involve CBOs, local council representatives and consultant technical advisers directly in contract award and in contract management. Supervision of non-primary infrastructure contracts would be undertaken jointly by the PIU consultant technical adviser, through contract sub-engineers, and by CBO representatives. Further details appear in Section F below and Annex 9.

3.20 Financial Flows. The arrangements for CI component financing would similarly be decentralized to PIUs, consistent with infrastructure contracting and payment responsibilities. Government's contribution would be funded through the LGERDD's Annual Development Program, which would be released annually in advance to PMU. PMU would transfer funds to project accounts at each PIU for PIU operating costs and contract services for Community Development. Payments relating to the Government's share of non-primary infrastructure (including, if agreed between the parties, the local council's share) would be disbursed by PIUs into scheme accounts, maintained in a commercial bank, and operated jointly with CBO co-signatories. Timely cashflow would be arranged by requiring PMU to release two months average requirements in advance to PIUs, and PIU/CBO/local councils to advance equivalent to four months' average requirements to scheme accounts, with monthly replenishment. In addition, prior to contract award, a CBO would be required to show a fund balance equivalent to its share of the total contract.

3.21 Women's Involvement. The pilot project has revealed potential problems with involving women fully in the project. For example, in some instances women are not allowed to meet outside the home with community workers. Special outreach efforts would therefore be necessary to ensure that women's views are reflected in project design and that project benefits reach women and children. Initial actions would include: employment of a female social organizer in each community social organization team; incorporation of women's support programs (e.g. savings schemes, women's non-formal education) within community development programs; health and hygiene awareness training directed towards women; and a requirement for women's representation on CBOs. In addition, in close coordination with the Women Division, in each of three sites, female officers would undertake action research and would implement pilot schemes for women groups' formation, capacity building, special education and training, including development of linkages to other existing programs.

E. Operation & Maintenance (O&M)

3.22 It is a fundamental objective of the project to involve the communities more in O&M of the local infrastructure which serves their neighborhoods. Nevertheless, the "maintenance culture" is not well developed in Pakistan, and accordingly special attention would be made to attempt to develop satisfactory mechanisms to involve communities in this process. Actions would be taken as follows:

(a) organization of community user groups for O&M of solid waste collection, cleaning of existing drains, and other community facilities (if any) would be undertaken at an early stage of the community mobilization process, and communities would specifically commit to undertake scheme O&M as part of the process of selecting infrastructure;

(b) satisfactory O&M of infrastructure would be considered as a factor when seeking to prioritize between communities, and satisfactory O&M of any project-funded infrastructure would be a prerequisite for further project infrastructure; and

(c) establishment of satisfactory O&M arrangements would be stressed as an important output from the component for design and implementation assistance.

3.23 Activities which have potential of community involvement have been identified and further details appear in Annex 8.

F. Procurement

3.24 Procurement of goods and civil works would be carried out in accordance with World Bank Procurement Guidelines. Procurement arrangements are summarized in Table 3.1 below, and details of civil works procurement arrangements appear in Annex 9.

3.25 Works. The estimated cost of civil works is US$25.9 million equivalent inclusive of contingencies, taxes and duties, with contracts generally under US$100,000 equivalent. The small, scattered nature of the work would limit the interest of foreign bidders. Civil works for primary infrastructure and larger secondary infrastructure would therefore generally be procured through national competitive bidding (NCB) procedures which do not preclude international participation. Existing procurement procedures of the implementing agencies have been reviewed and suitable modifications agreed to ensure adequate competition and encourage economy and efficiency. Model bid documents, satisfactory to IDA, and community agreements have been agreed. Procurement procedures have been strengthened, principally by involving CBO representatives and independent technical advisers at appropriate stages in the contract award and implementation process.

3.26 The project's civil works can be broadly classified into three types. Type A works would comprise principally of primary infrastructure would be grouped and bid as single contracts (of about US$150,000 equivalent) at divisional level as far as possible, to attract experienced local contractors and minimize administrative overheads. These works would be executed through A/B class contractors registered with LGERRD/Local Councils/PUDP/PHED/Communications and Works Departments. There would be about 60 contracts of this type. Type B works, consisting of typical secondary and more complex tertiary services would be contracted out, in integrated annual packages for each community of up to US$50,000. NCB or, in case of poor response, local shopping procedures (at least three priced quotations), using simplified percentage rate bid documents, would be adopted. Very simple and small-scale project-financed civil works (Type C works) estimated to cost up to US$20,000 per contract, in total not exceeding US$5 million equivalent, would be procured through direct contracting to communities, using documentation acceptable to IDA.

Table 3.1: PROCUREMENT ARRANGEMENTS
(US$ Million)

Project Element	Procurement Method ICB	NCB	Other/a	NIF	Total Costs
Land/b				0.3	0.3
				(0.0)	(0.0)
Works		14.1	11.8		25.9
		(9.8)	(6.5)		(16.3)
Grants for on-plot sanitary facilities			0.9		0.9
			(0.9)		(0.9)
Goods	0.3	0.4	0.2		0.9
	(0.2)	(0.3)	(0.2)		(0.7)
Consultancies					
Service Contracts			1.5		1.5
			(0.2)		(0.2)
Design and Implementation TA			2.7		2.7
			(0.1)		(0.1)
Institutional Development TA			1.8		1.8
			(1.1)		(1.1)
Incremental Staff Costs			3.5		3.5
			(0.9)		(0.9)
Miscellaneous/c					
Refinancing PPF			1.3		1.3
			(1.3)		(1.3)
TOTAL	0.3	14.5	23.7	0.3	38.8
	(0.2)	(10.1)	(11.2)	(0.0)	(21.5)

Note: Figures in parentheses are respective amounts financed by IDA Credit.
NIF = Not IDA Financed

/a Including community works, incentive grants and shopping, small purchases, incremental staff costs, service contracts and consultants.

/b Land acquisition to be funded by government, or the community as their contribution.

/c Services procured under PPF 761-0 PAK

3.27 Goods. The estimated cost of goods (mainly site vehicles and office equipment) is US$0.9 million inclusive of contingencies, taxes and duties. Contracts over US$100,000 equivalent would be awarded on the basis of international competitive bidding (ICB), including the procurement of vehicles and equipment. Local suppliers and manufacturers competing for the supply of goods under ICB would be granted a margin of preference of 15% of the CIF bid price

for locally manufactured goods or the applicable custom duties and taxes--whichever is lower--during bid evaluation. Other procurement of vehicles and equipment in contracts of less than US$100,000 equivalent would generally be carried out under NCB procedures aggregating not more than US$0.4 million. Minor items including office furniture and equipment, personal computers, vehicles and items in small quantities which would not attract the interest of foreign suppliers, would be procured through local shopping obtaining price quotations from not less than three suppliers, in packages not exceeding US$50,000 equivalent, and not exceeding US$0.2 million equivalent in aggregate (including taxes).

3.28 Grants. The project would finance incentive grants up to US$40 equivalent each, in total not exceeding US$900,000 equivalent, to meet 25% of the cost of approved on-plot sanitary facilities, using documentation acceptable to IDA.

3.29 Consultancies and Incremental Staff. The estimated cost of service contracts, consultants, training and incremental staff is $9.5 million equivalent. Service contracts and consulting services would be procured in accordance with The World Bank Guidelines for Use of Consultants. About US$0.9 million inclusive of contingencies would be provided to finance a declining proportion of PMU/PIU staff costs.

3.30 Contract Review. GOP confirmed at negotiations that the first Type A (primary infrastructure) and Type B (secondary or tertiary infrastructure) contracts issued by PMU and by each PIU, and all individual contracts for civil works and goods estimated to cost the equivalent of US$150,000 or more would be subject to IDA's prior review and approval (para. 6.1). About 20% of the total estimated civil works and goods procurement would be subject to IDA's prior review. Post review would be undertaken of the remainder.

G. Land Acquisition

3.31 Only small areas of land would be required for the construction of infrastructure, which would mostly be provided within existing rights of way. Land is available for the first 2 years' construction program. The minor land acquisition anticipated would not be expected to create adverse impacts, and if any resettlement is required it would be in accordance with procedures satisfactory to IDA (para. 5.10). The cost of land to be provided or acquired has been estimated at US$0.3 million equivalent.

H. Disbursements

3.32 On the basis of the proposed implementation schedule (Annex 5 and para. 3.10), disbursements would continue for six years. The proceeds of the credit, and the SDC funds, would be disbursed as indicated in Table 3.2 below. SDC funds would be disbursed for service contracts, consultancy, technical assistance and training for Community Infrastructure and for the National Housing Authority components. SDC's funds would be disbursed before disbursing IDA funds for these components. The estimated disbursement schedule is shown in Annex 10.

3.33 GOP confirmed during negotiations that disbursements would be fully documented except those for: (a) civil works contracts under US$150,000 each; (b) contracts for imported and locally procured goods under US$150,000 each; (c) contracts for consulting firms less than US$100,000 equivalent and individual consultants less than US$50,000 equivalent; (d) local training; and (e) incremental staff costs. Such disbursements would be made against Statements of Expenditure (SOE), the documentation for which would not be submitted to IDA but retained by PMU in Peshawar and made available during the course of project supervision. It is estimated that about US$10 million equivalent would be disbursed through SOEs.

3.34 Special Accounts. To facilitate disbursement, GOP confirmed at negotiations that two Special Accounts would be opened by PMU, one for IDA and another for the Swiss Contribution with an initial deposit of US$1.0 million and US$200,000 respectively, and by NHA, with an initial deposit of US$40,000, in the National Bank of Pakistan on terms and conditions acceptable to IDA (para. 6.1). The Special Accounts would be operated by PMU and NHA, used to finance all eligible expenditures, and would be replenished from time to time on receipt and approval of withdrawal applications, supported by required documentation.

Table 3.2: DISBURSEMENT BY CATEGORY

Category	Amount of Credit Allocation (US$ million)	Amount of Swiss Contribution (US$ million)	% of Expenditures to be Financed
1. Civil Works	14.7		70% of expenditures
2. Goods and Equipment			100% of foreign expenditures, or 100% of local expenditures (ex-factory) and 80% of local expenditures for other items procured locally.
a) NHA	0.1		
b) Other	0.5		
3. Grants for on-plot sanitary facilities	0.8		100% of amounts disbursed
4. Service Contracts, Consultancy, Technical Assistance and Training.			100% of expenditures
(a) NHA Component	0.6	0.45	
(b) Other	0.7	3.0	
5. Incremental Staff Costs	0.8		60% of expenditures in FY95 through FY97, 55% of expenditures in FY98 and FY99, and 40% of expenditures thereafter.
6. Refinancing of Project Preparation Facility	1.3		
7. Unallocated	2.0		
TOTAL	21.5	3.45	

3.35 Most procurement and payment would be through the district-level PIUs, generally by the Assistant Director or equivalent, using district level procedures. Efficient project management would necessitate this decentralized approach. Existing legal agreements between GOP and the World Bank on the operation of Special Accounts prohibit the establishment of subsidiary accounts, therefore the Special Account funds cannot be made directly available for use by field offices. Project expenditures incurred by district-level field offices would be paid for with Government funds from Personal Ledger Accounts or equivalent, for subsequent reimbursement from the Special Account.

3.36 Retroactive Financing. Retroactive financing would be provided to cover eligible foreign and local expenditures on civil works, materials, incremental staff, vehicles and equipment, consultancy services and training up to US$900,000 equivalent, incurred after October 15, 1994 and before credit signing, needed in order to maintain the momentum achieved during project preparation and to prevent delays in implementation of critical project activities.

I. Accounts and Audit

3.37 Each project entity would maintain accounts capable of reporting all receipts and payments in respect of the project including SOEs and any special account. The accounts would: (a) record the progressive and the annual cost of the project by component and by infrastructure upgrading scheme; (b) account for all project funds (including IDA's) by category of expenditure; (c) provide the basis for disbursements of funds (including IDA's); and (d) illustrate the extent of compliance with credit agreements. GOP confirmed at negotiations that the executing agencies would prepare and submit to IDA within six months after the close of each fiscal year fully audited project accounts including an auditor's opinion and report for the project, SOEs and Special Accounts, undertaken by auditors satisfactory to IDA (para. 6.1). Under the Social Welfare Act, CBO accounts would be audited annually by local commercial audit firms. PMU would obtain annually copies of CBO's audited accounts and would retain these for review by IDA.

J. Monitoring, Supervision, and Evaluation

3.38 As the project would incorporate significant innovations with regard to community involvement in infrastructure development, a high level and quality of monitoring and evaluation would be demanded. The project would be implemented in a phased manner to permit a "learning approach" and would include provision for review and adaptation. GONWFP, SDC and IDA would jointly conduct regular formal reviews of the efficiency and effectiveness of project policies, criteria and implementation progress. GOP confirmed at negotiations that GONWFP would prepare, by March 31, 1998, a report evaluating progress to date, including recommendations to enhance implementation of the project, which would form the basis for a mid-term review by June 30, 1998 (para. 6.1). NHA would take part in these reviews, for the purpose of refining national policies.

3.39 Monitoring and evaluation indicators have been developed to measure: (a) the efficiency of project implementation; (b) the effect of infrastructure provision on the environment,

public health and living conditions; (c) the impact on the community's management capacities and skills; and (d) the impact on government's capacity to provide facilities and services (Annex 11). For the CI component, the primary focus would be on the community level, where monitoring data would be generated by the community based planning and development activities. Attention would be given to monitoring and review of the efficiency of the implementation assistance, and assessing environmental impacts.

3.40 The disbursed nature of the project, the involvement of different departments, tiers of government and communities, and the large number of small contracts would necessitate development of computerized project management systems for control and monitoring. Outline software-based project planning and management tools are in place (for example, see Annex 5), and would be further developed and implemented in the initial phase of the project. The PMU's Monitoring and Evaluation Unit would operate and maintain satisfactory project management systems, and would prepare quarterly activity reports, summarizing the activities of the past period, emerging problems and issues, required actions and the outlook for the next phase. The reports would also provide summary data on the identified set of core monitoring indicators. GOP confirmed at negotiations that GONWFP would cause PMU to maintain policies and procedures adequate to enable it to monitor and evaluate the project on an ongoing basis, in accordance with indicators satisfactory to the Association (para. 6.1).

3.41 The project is expected to require, on average, about 14 staff weeks per year of supervision, or about 72 weeks over the five year implementation period, but in earlier years some 16 to 17 weeks would be required. This reflects the innovative nature of the project; the logistical challenges of the dispersed investments proposed; and that this is IDA's first project in the sector in NWFP. A supervision plan, including the project launch workshop, formal reviews, and regular supervision mission objectives is shown in Annex 12.

IV. PROJECT FINANCING AND COST RECOVERY

A. Present Arrangements

4.1 Publicly provided community infrastructure is mainly financed from general government revenues. The majority of investment is through the Provincial government's development budget, which is financed from development loans, recurrent budget surplus and donor assistance. These sources are supplemented by programs such as the members of the national and provincial assemblies' programs and by local councils' development budgets. There is presently no attempt to recover the capital costs of infrastructure through direct charges. In urban water supply, a program exists to finance local councils' development by equal combinations of council contribution, provincial loan and provincial grant. But in practice the local council's direct contribution is often not forthcoming, and loan repayments can only be collected if recovered at source from provincial transfers to the council.

4.2 O&M costs of infrastructure are typically only partially recovered from user charges, although recently GONWFP has initiated revisions in urban water tariffs, and improvements to the administration of collection are being attempted through involvement of the private sector. In rural areas, government has a policy of handing over O&M responsibilities for rural water schemes to communities, under the umbrella of District Councils. Nevertheless, O&M remains under-funded as provincial government is limiting the growth of its recurrent expenditures and is therefore unwilling to take on extensive O&M responsibilities, and local councils are financially weak. In addition, as frequently neither local councils nor communities are involved in investment planning and implementation, there is a reluctance on their part to take over or finance O&M of completed schemes. This reluctance may be reinforced by scheme designs which are costly and complex to operate. As a consequence, financing for O&M is likely to remain inadequate, thereby undermining the sustainability of infrastructure investments.

B. Cost Recovery and Capital Contributions

4.3 In addition to growing pressures on government budgets, the urgent requirement for ensuring operational sustainability of infrastructure is the main rationale for the cost recovery structure which would be introduced through the project, and which would form an important, integral part of the broad-based community participation process. GONWFP's policy framework would require: (a) communities to contribute at least 20% of CI capital costs, excluding primary infrastructure, and to be fully responsible for O&M; and (b) for local councils to contribute at least 10% of non-primary infrastructure capital costs.

4.4 A principal reason for requiring communities' and local councils' capital contributions would be in order to ensure that both have a voice in design and implementation. The communities' contribution, combined with procedures which allow a choice of types of infrastructure, would also provide an element of rationing in investment decisions, and both contributions would assist financing. For the contribution to be effective in achieving these objectives, it needs to be collected, and hence the community contribution would be required up-front.

4.5 Making communities responsible for O&M costs would address the under-funding of O&M which undermines infrastructure sustainability. Encouraging community ownership of the infrastructure through involvement in development, making communities financial stakeholders, and awareness of O&M liabilities prior to investment would each facilitate subsequent community involvement in O&M. As appropriate, advice and assistance would be provided to communities through technical and financial training to help them discharge their O&M responsibilities. Making satisfactory O&M of existing CI investments a criteria for future CI schemes would provide an incentive to establish good practices.

4.6 Particularly in urban areas, local councils may need to play a stronger role in maintaining the primary and secondary infrastructure required to serve community areas. Community willingness to pay user charges would not necessarily improve the performance of these institutions. This would be addressed in the project as part of the study of LGERDD. Local councils would, however, as a result of project procedures be made aware of O&M responsibilities arising from schemes prior to signing MOUs, and PMU/PIU and CBO linkages to these institutions would be strengthened through project interventions. Community O&M contributions to CBOs would also allow the consideration of the private sector as an alternative supplier where feasible.

C. Beneficiary Affordability

4.7 Beneficiary contributions to a scheme's capital cost would amount up to Rs 1,500 per household on average. This payment, although required up-front, would be payable in advance of each stage of implementation of a scheme, which could be spread over two to three years. While savings or other liquid assets would be one source of finance, beneficiaries would also be able to save up their contribution during mobilization and scheme preparation phases. Where affordability would be a constraint, selection of lower cost schemes, or extension of the period between implementing each phase of a scheme, would be possible.

4.8 Sample household surveys (1991) have identified the levels and patterns of asset holding of low income households. Assets typically include liquid assets in the form of cash balances, short-term deposits with banks, prize bonds, participation in informal rotating credit schemes (bisis), etc. of about Rs 2,500 per household in small towns and almost Rs 6,000 in large cities. As such, it is estimated that over 90% of the beneficiaries in large cities and 70% in small towns can afford to make contributions of up to Rs 2,000 per household.

4.9 The willingness to make such contributions presupposes a demand for the community infrastructure being offered; confidence that government would, through the project and in conjunction with communities, deliver these services; and an expectation that the desired services could not be obtained through one of various alternative "free" programs. Project preparation indicates that demand exists, although communities are initially cautious and skeptical. The project includes measures to advertise and disseminate information about results and successes, in order to overcome initial doubts, and actions, for example health and hygiene awareness training, to generate effective demand for balanced packages of infrastructure and community development.

4.10 Given this, there are reasons to believe that the willingness to make significant up-front cash contributions may be high. First, private returns from such payments are likely to be

substantial. A personal contribution of Rs 2,000 can lead to an increase in value of land owned which is five to seven times the outlay. Second, studies of the determinants of rent (rent hedonics) in low income areas in the cities of Pakistan reveal the high premium that is attached by low income households in squatter and slum areas to service improvements. Estimates of the increase in rent from improved water supply is about 18% to 27%. If this increase in rent is capitalized, then the average increase in property value (assuming a 12-1/2% rate of discount) is almost Rs 5,200. Similarly, the increase in rental value due to an improved access road is about 8% to 10%. These gains appear to justify significant self-financing of service improvements by low-income communities in urban areas.

4.11 Affordability for payment of user charges to cover O&M costs of services provided, appears to be less of a problem. User charges are estimated at between Rs 20 to Rs 25 per month per household. The median monthly income of urban households in NWFP is about Rs 2,600. As such, the burden of these payments is likely to be only about 1% to 2% of income for most of the beneficiaries.

D. Government Affordability

4.12 In urban areas in NWFP, local council spending averaged Rs 164 per head in 1990/91. Of this, about Rs 42 was classified as development expenditure, although this classification would include some expenditures of a recurrent nature. Assuming that a scheme extends for a three year period, local council development expenditure per household during this period would be on average more than the 10% contribution required. In rural areas in NWFP, district councils average expenditure per head in 1990/91 was Rs 19 in total, of which Rs 11 was for development. This would be somewhat below the equivalent 10% maximum contribution to upgrading costs (estimated as 10% of Rs 6,000 per household). The expenditure would nevertheless be small within the context of the whole budget (typically 1% - 2%) and is therefore considered affordable.

4.13 Following the National Finance Commission award, which included for NWFP the provision of a share of WAPDA's profits, the province has been able to earn a surplus on its revenue account. In 1992/93, the revenue surplus is budgeted to amount to Rs 1,458 million, contributing 22% of the total Rs 6,575 million development budget. Within the total development budget, the allocation for basic infrastructure amounted to some Rs 500 million, excluding Social Action Program and foreign project assistance. The provincial share of project capital expenditure would be between 10% and 15% of regular sector allocations in urban areas, and would be about 20% of sector allocations in rural areas.

4.14 Despite increasing debt service liabilities, the province is aiming to retain a revenue account surplus in the medium term, partly by controls on recurring expenditure levels. Therefore some flexibility would remain in the province's development budget. The above mentioned levels of provincial contribution (amounting in total to less than 6% of the current level of revenue account surplus, based on the size of project proposed) would therefore be sustainable, particularly given the other financial benefits to the province of community and local council contributions to capital costs and responsibility for O&M.

V. PROJECT JUSTIFICATION AND RISKS

5.1 The investment program would alleviate some of the acute symptoms of poverty, and lay the foundation for strengthened procedures to provide improved access to basic services in the future. The main investment component, infrastructure upgrading, would provide a direct impact in terms of improving the living conditions of poorer households, especially for women and children. Experience elsewhere in Pakistan demonstrates that investment in basic infrastructure brings substantial new private investments by households, particularly in kitchens and bathrooms. Due to the nature of the investment program, the project is expected to have net positive environmental consequences.

A. Poverty Impact and Other Benefits

5.2 Upgrading basic infrastructure is expected to produce high benefit levels for several reasons. First, households would decide what services they want based on their needs and ability to pay. This would help to ensure that highly-valued projects are undertaken, and that these projects would be maintained and operated so as to produce a long stream of benefits. Second, upgrading would be relatively easy to target on low-income households because the poor are more likely than higher-income households to occupy inadequately-serviced areas. The impact of upgrading would be greatest for households with the poorest initial living conditions. Finally, the stream of benefits would be intensified because of cultural factors which cause women and children in the province to spend large amounts of time in and around their residences. Complementary health education programs would improve the utilization of infrastructure and maximize the return from infrastructure investments.

5.3 Depending on the mix of components (e.g., water supply, drainage, improved access, sanitation, etc.), upgrading produces a wide range of benefits, some of which are more easily quantified than others. Because the community would determine the mix of infrastructure components, and because the impact of any given investment would depend on a number of key factors such as the existing level of services and population density, it is difficult to make precise estimates of benefits. Nevertheless, the nature of the benefits typically associated with the various physical components that are commonly included in upgrading projects can be described.

5.4 Health improvements would be the primary benefits derived from improved water supply, drainage, solid waste disposal, and sanitation facilities. Improved health results from both increased quantity and quality of water, and in rural areas, easier access to water. Drainage prevents the accumulation of used water, which is a source of disease, groundwater contamination, and a breeding ground for mosquitos. The collection and disposal of solid waste improves air quality and the residential environment, and prevents drains and sewers from clogging. Improved sanitation facilities result in safer disposal of excreta, possibly more frequent use of facilities by women, and less contamination of drinking water supplies.

5.5 Electricity, gas, and improved access provide indirect health benefits. Electricity can be used for security lighting and can power water pumps. Gas provides a relatively clean fuel

source for cooking and heating. Access improvements may result in safer roads, footpaths, and bridges.

5.6 In addition to alleviating some of the symptoms of poverty, upgrading could, to an extent, directly reduce poverty by increasing productivity and income generation. Higher productivity could result from better health and time savings, the latter coming from less time spent collecting water and less time spent maintaining dwellings (e.g., buildings previously needing frequent repair due to poor drainage). Improved services could make some types of home-based businesses possible, and could stimulate investment in the housing stock, which could include space for home-based businesses and rental units.

5.7 Equity considerations must be taken into account in addition to the health, productivity, and economic benefits described above. The project would help narrow the gap in services between the rich and poor. Women and children are the primary beneficiaries of infrastructure upgrading; these are the groups which are suffering the most from poor living conditions.

B. Environmental Impact

5.8 There are no major environmental problems anticipated for this project, which has received a B rating under the IDA's Environmental Assessment Operational Guidelines. The Community Infrastructure component is designed to improve the living environment for urban and rural low-income communities, and accordingly the overall environmental impact of the proposed works would be beneficial. Communities would be required when preparing CAPs to choose (with technical guidance from PIUs) environmentally sound project components or combinations of components (e.g., on-site sanitation would not be an option if it would degrade ground water used for drinking). Scheme approval would be contingent upon satisfying environmental and health criteria meeting IDA's requirements. Environmental Impact Assessments have been prepared for Phase 1 sites and are available in the project file.

5.9 Improved water supply, although aggravating the wastewater disposal problem, would provide significant health benefits by rehabilitating distribution lines which are currently old, leaking and located in drainage channels with a high risk of pollution given the intermittent nature of supply and low pressure. The quantities of water produced would be such that on-site disposal through leaching latrines would generally still be acceptable. Improvements in storm water drainage facilities, by reconstructing or lining channels, would decrease the occurrence of stagnant water, with resultant improvements in community health. Solid waste management would improve both collection and disposal, including by providing additional storage (containerization) facilities and, where appropriate, local transportation (handcarts) for community operation. The incidence of refuse spreading from uncontrolled heaps through wind and animals would be reduced and there would be less need to resort to dumping refuse in drains and watercourses. The disposal of sullage and sewage in storm drains is of particular concern and would be addressed not only by the establishment of an on-plot sanitation program and health and hygiene education but, in addition, for two larger communities, pre-treatment ponds would be established on a pilot basis to pre-treat dry weather flows. It is expected that this will assist GONWFP in framing a coherent wastewater treatment policy for smaller settlements for the future. The access roads, minor streets and footpaths components would also have an environmental benefit by reducing the number of potholes

and un-reinstated utility trenches which often result in stagnant pools of dirty water and creation of mud during the rainy seasons, and clouds of suspended dust in dry seasons. The project would place a special emphasis on O&M, with communities participating in the agreement of O&M arrangements, including O&M financing, prior to investments being made.

5.10 No resettlement is required for the 20 schemes for which detailed designs have been prepared. Resettlement refers to any loss of shelter, land place of work or other major assets upon which a person's livelihood depends. Due to the relatively small scale of the investments at the site level, it is not anticipated that any resettlement would be required under the project. In case resettlement does, however, arise in the sites remaining to be prepared, or as a result of Phase 1 scheme design changes, GOP confirmed at negotiations that if there are any persons displaced or to be displaced as a result of the acquisition of any land required for the purposes of the project or any scheme included in the project, such persons shall be compensated and/or resettled in accordance with arrangements satisfactory to the Association, providing, among other things, for: (a) full consultation with the affected persons; (b) provision of equivalent or better accommodation at equal or lower cost and maintenance of the standard of living; and (c) assistance in moving (para. 6.1).

5.11 Training provided through the project would include a focus on teaching project staff how to increase environmental awareness among the community, and how to improve communication between the community, project staff, and environmental agency staff. Environmental and health awareness would be developed during the early stages of community mobilization.

5.12 The project would require coordination with ongoing and proposed planning and environmental initiatives. For example, federal and provincial institutions with environmental responsibilities such as conducting environmental impact assessments and planning are to be strengthened through the ongoing Environmental Protection and Resource Conservation Project (Credit 2383-PAK). Coordination would be effected through the Steering Committee, which includes the agencies concerned.

C. Economic Analysis

5.13 The economic analysis of the infrastructure upgrading was carried out by estimating the economic internal rate of return (EIRR) and net present value NPV of the benefit and cost flows. Costs include the base cost of investment in physical infrastructure with provision for overhead costs. Economic costs have been estimated by applying a conversion factor to the costs to capture the divergence between the shadow and market prices of different inputs.

5.14 Society's value of infrastructure upgrading is seen in terms of a "catch-all" measure, the resulting increase in land values. This measure reflects the benefits arising from environmental improvements in quality of life as well as consumer welfare gains from enhancements in service levels. Research conducted during project preparation indicates that infrastructure provision can increase plot values in Pakistan by as much as 50% to 150%. This research involves comparing areas with little infrastructure to those with fairly complete infrastructure and may, therefore, overstate the benefits that would accrue to project communities where rudimentary infrastructure

would exist. Accordingly, the EIRR and NPV of the investment are conservatively estimated assuming property value increases of 20% to 25%.

5.15 Results of the economic analysis, described in greater detail in Annex 13, reveal that an increase in plot values of about 21% will yield an EIRR of approximately 31%. Net benefits are negative when plot values only increase by about 15%. Taking the case where plot values increase by about 21% as the "base case", sensitivity analysis reveals that the NPV remains positive (using a 30% discount rate) after reducing the average plot value before improvements from Rs 60,000 to Rs 55,000, or increasing the base costs by 10%. The EIRR in these two alternative scenarios drops to 18.5% and 19.5%, respectively. The NPV remains positive even after increasing base costs by 20%.

D. Risks

5.16 The main risk concerns the success or failure of the community based approach. Communities may lack sufficient confidence in government to want to become involved in, and contribute financially to, the project; or government may lack the skills, motivation and capacity to involve communities fully in project schemes. A further risk could be that, despite perceiving the project's benefits, communities would opt to wait for an alternative government infrastructure scheme offered on a "no cost" basis. Any of these possible outcomes could generate pressures to revert to more traditional arrangements with limited participation. To alleviate these risks, the project would incorporate the following measures and actions. First, the project builds on the experiences gained through pilot operations. Second, these pilot schemes and retroactively-financed continuation works would be used to demonstrate and publicize the success of the approach. Development of a community liaison capacity, staff training, involvement of UNICEF, close and continuous monitoring by the Steering Committee and external supervision would support the government's attempt to apply the participative approach. The project would allow new communities to be selected in place of any which eventually proved unwilling to participate, or which failed to qualify through, for example, insufficient contribution for the investments or inadequate O&M of earlier works. Conversely, priority would be given to communities which were more prepared to contribute financially or were better organized.

5.17 Further risks are that parts of the community may dominate decision-making, or that other parts (for example, women) may be under-represented. Community liaison staff would be sensitized to these risks, and female liaison staff would be engaged to ensure women's opinions were taken into account. The project is specifically designed to address the traditional risk of failure to sustain the benefits of infrastructure due to inadequate O&M practices, but difficulties are to be anticipated in introducing the new approach.

VI. AGREEMENTS REACHED AND RECOMMENDATION

6.1 During negotiations, assurances were obtained on the following:

(a) GONWFP would establish and thereafter maintain with membership, responsibilities and resources satisfactory to the Association, a Project Review Board, a Project Steering Committee and a Project Working Committee (para. 3.4).

(b) GONWFP would, exclusively for the purpose of undertaking the Project: (a) establish and thereafter maintain with staff, responsibilities and resources satisfactory to the Association, Directorates of the Project Management Unit for Planning and Community Development, Design and Implementation, Monitoring and Evaluation and a Finance Wing; and (b) strengthen Project Implementation Units and thereafter maintain them with staff, responsibilities and resources satisfactory to the Association (para. 3.5).

(c) GONWFP would implement the Project in accordance with an implementation plan satisfactory to the Association; and would by January 31, 1997 and by each January 31 thereafter review and update the implementation plan in accordance with procedures satisfactory to the Association (para. 3.10).

(d) GONWFP would ensure that infrastructure and community development schemes to be included in the project would be selected on the basis of criteria, and designed, financed, implemented and maintained through processes satisfactory to the Association (para. 3.17).

(e) GONWFP would cause LGERDD/PMU to enter into an agreement with the concerned CBO and local council for financing, implementing and maintaining the scheme, on terms and conditions satisfactory to the Association (para. 3.18).

(f) the first Type A (primary infrastructure) and Type B (secondary or tertiary infrastructure) contracts issued by PMU and by each PIU, and all individual contracts for civil works and goods estimated to cost the equivalent of US$150,000 or more would be subject to IDA's prior review and approval (para. 3.30).

(g) two Special Accounts would be opened by PMU, one for IDA and another for the Swiss Contribution, with an initial deposit of US$1.0 million and US$200,000, respectively, and by NHA, with an initial deposit of US$40,000, in the National Bank of Pakistan on terms and conditions acceptable to IDA (para. 3.34).

(h) the executing agencies would prepare and submit to IDA within six months after the close of each fiscal year fully audited project accounts including an auditor's opinion and report for the project, SOEs and Special Accounts, undertaken by auditors satisfactory to IDA (para. 3.37).

(i) GONWFP would prepare, by March 31, 1998, a report evaluating progress to date, including recommendations to enhance implementation of the project, which would form the basis for a mid-term review by June 30, 1998 (para. 3.38).

(j) GONWFP would cause PMU to maintain polices and procedures adequate to enable it to monitor and evaluate the project on an ongoing basis, in accordance with indicators satisfactory to the Association (para. 3.40).

(k) GONWFP would ensure if there are any persons displaced or to be displaced as a result of the acquisition of any land required for the purposes of the project or any scheme included in the project, such persons shall be compensated and/or resettled in accordance with arrangements satisfactory to the Association, providing, among other things, for: (a) full consultation with the affected persons; (b) provision of equivalent or better accommodation at equal or lower cost and maintenance of the standard of living; and (c) assistance in moving (para. 5.10).

6.2 Conditions of credit agreement effectiveness were agreed at negotiations to be:

(a) all conditions for effectiveness of the Swiss Contribution agreement, other than those related to Credit effectiveness, would be fulfilled (para. 2.20); and

(b) the appointment of the Director Planning and Community Development, Director Design and Implementation, Deputy Director Monitoring and Evaluation, Deputy Director Finance, Assistant Directors PIU and the design and implementation consultants for community infrastructure (para. 3.11).

6.3 Recommendation. On the basis of the above agreements, the proposed project is suitable for an IDA Credit of SDR 13.7 million (US$21.5 million equivalent) to the Islamic Republic of Pakistan.

PAKISTAN

NWFP COMMUNITY INFRASTRUCTURE AND NHA STRENGTHENING PROJECT

STAFF APPRAISAL REPORT

COMMUNITY INFRASTRUCTURE COMPONENT - DETAILED DESCRIPTION

OVERVIEW

1. The project would comprise three components in support of low income communities. The major component is Community Infrastructure, which has a total base cost of about US$28.7 million or 90% of the project total. It includes three sub-components:

(a) Infrastructure Upgrading;
(b) Community Development; and
(c) Design and Implementation Assistance.

2. The other project component is the Institutional Development, including sub-components for the Local Government, Elections and Rural Development Department (LGERDD) and the National Housing Authority (NHA).

A. INFRASTRUCTURE UPGRADING (TOTAL BASE COST US$ 21.5 MILLION - 56%)

3. The major component of the project is the upgrading of infrastructure in approximately 55 urban and rural communities. This would be implemented in three phases. Detailed design have been prepared for 18 Phase 1 communities. An additional 27 communities (approximately 1830 ha, 208,000 population and average density of 114 persons/ha) have been identified for Phase 2 of the project and limited funding will also be included for additional communities (Phase 3 - approximately 8 sites up to about 540 ha).

4. The Community Infrastructure component would be demand driven, with the infrastructure to be provided according to the priorities of the respective communities. The fundamental concept of the project is to foster a sense of ownership of the infrastructure on the part of the communities. Giving communities choice and a voice in what is proposed is intended to encourage communities to contribute financially to the investments they choose, and to take greater responsibility for their operation and maintenance.

5. Appropriate functional standards for planning, design, and construction have been developed taking cognisance of locally available materials, ease of construction and maintenance, and affordability (See Annex 7). Affordability and a balanced provision of infrastructure have also been important objectives in the design process, although the project allows communities to choose from a range of alternative standards within cost ceilings. Another important objective of the process is to improve operation and maintenance (O&M), and communities would be required to agree to satisfactory O&M arrangements prior to selecting any specific infrastructure scheme (See Annex 8).

6. The final composition of the project would only be known after each community has prepared its Community Action Plan, and this has been reviewed and modified to conform with technical,

financial and other agreed criteria. This process, following the establishment of CBOs and their participation in the planning and design process carried out by PMU and its consultants, has been completed up to detailed engineering design for the 14 Phase 1A communities. For purposes of costing the project, the total base costs[1/] for each sectoral sub-component have been determined and then expressed on an areal basis (Rs/ha). The areal costs (Rs.181,000 per ha) of a balanced package of primary, secondary and tertiary infrastructure (including on-plot sanitation) have then been applied to Phase 1B, Phase 2 and Phase 3 schemes to extrapolate total costs. Average base costs (January 1994 prices) for the whole component are estimated at about Rs 172000 per/ha. A summary of the coverage, population served, densities and total costs is set out in Table 1 below.

Table 1: SUMMARY OF INFRASTRUCTURE UPGRADING

PHASE	AREA (HA)	POPN.	DENSITY (PERS/HA)	AVERAGE BASE COST (RS/HA)	TOTAL BASE COST (JAN 94) (RS MILL)
1A	704	94,500	134 P/HA	136,000	95.651
1B	406	57,000	140 P/HA	181,000	73.485
2	1,830	208,000	114 P/HA	181,000	331.042
3	540	61,500	114 P/HA	181,000	98.087
TOTAL	3,480	421,000	121 P/HA	172,000 AV.	598.3

Note: Costs include trunk, secondary and tertiary infrastructure but exclude land, and total base costs are equivalent to Rs.677.3 million in estimated January 1995 prices. Numbers are rounded.

Selection of Priorities

7. The priorities of the communities surveyed in Phase 1 were generally as follows:

(a) water supply;
(b) drainage;
(c) access; and
(d) solid waste containerisation.

8. The order of priority differed amongst these elements from community to community and, in a few cases, other priorities featured (e.g., flood protection works). Sanitation facilities and practices in the communities surveyed have been reported as poor, and yet demand for sanitation facilities (e.g. latrines) has rarely featured in the lists of community priorities. This may imply that the survey process may have been too limited resulting in a narrow range of community infrastructure demands. During the implementation of Phase 1 and in designing subsequent project phases, community liaison and preparation activities will emphasize the possibility of other infrastructure elements being included, and also fully explain the advantages and opportunities the project offers to improve health and sanitation (see Sanitation below).

[1/] Cost, at January 1994 prices, excluding contingencies and design and supervision allowances.

9. Possible further choices of infrastructure facilities could, subject to prior community agreement to satisfactory O&M arrangements, include:

(a) infrastructure provision that supports local economic activities (e.g., market stalls, bus stands);
(b) provision of SUI gas, where primary facilities are available;
(c) basic security (street) lighting; and
(d) provision of community facilities such as community halls.

10. Primary education and primary health facilities are available through a number of other programs, and the first consideration would be to seek such facilities from these alternative sources (principally due to the need to provide for continuing, relatively high, recurrent costs, and to coordinate with province-wide sector and development policies and plans).

Trunk Infrastructure (Total Base Cost US$ 8.1 million - 21%)

11. Trunk infrastructure includes off-site infrastructure and that infrastructure serving the community at large. It would include, for example:

(a) tubewells, bulk water transmission, storage and distribution;
(b) sewage and drainage pumping stations, collector channels, sewage treatment ponds;
(c) solid waste transfer stations and landfill sites; and
(d) access roads.

12. Consistent with Government policies in NWFP (and for virtually all public infrastructure supply in Pakistan), communities would not contribute directly to trunk infrastructure costs. These would be financed through general government revenues. Trunk infrastructure required to allow secondary and tertiary infrastructure to function would need to be in place prior to implementing project-financed secondary/tertiary investments. The project includes a component for such infrastructure, which is subject to an assessment of technical and economic feasibility if costs exceed a threshold amount. Subject to this requirement, once a community has determined a service to be a priority, the development of any required trunk infrastructure could commence directly, and be undertaken in parallel with community mobilization, development and resource mobilization activities.

Water Supply Local Infrastructure (Total Base Cost US$ 1.3 million - 3%)

13. Water in rural areas is supplied by various means including standposts, handpumps, wells as well as through individual or shared house connections. In larger communities and urban or peri-urban areas tubewells and reservoirs, constructed and operated by PHED, serve the distribution systems. In some cases water is supplied direct from rivers through gravity systems. In urban areas where a piped supply system exists the distribution systems are often surface laid, routed along and across drainage channels and often submerged in polluted water. These pipes are prone to damage and with intermittent supply systems, low pressures and faulty equipment, contamination of the water supply is a risk.

14. Rehabilitation of distribution systems as well as augmentation, generally to serve house connections, will thus be a major sub-component of the project which will also improve necessary trunk facilities (see above) such as tubewell and pump rehabilitation/replacement where critical. Potability of drinking water, especially when supplied direct from river sources, would be checked and remedial measures taken as appropriate.

Drainage Local Infrastructure (Total Base Cost US$ 3.9 million - 10%)

15. Few formal stormwater drains (open channels) exist in selected communities and where they have been constructed they are often in poor condition having lacked any regular cleaning or periodic maintenance. Invariably the stormwater drains act as sullage and sewage carriers, conveying their contents either to main watercourses, to open areas or to fields for irrigation. In response to community demands, comprehensive open channel stormwater drainage systems to be constructed as trapezoidal or rectangular channels in either brick or concrete have been designed for all communities. System designs have allowed for the fact that sullage will continue to be discharged to the drains for the foreseeable future.

Sanitation Local Infrastructure (Total Base Cost US$ 2.7 million - 7%)

16. Although sanitation is not an initial community priority, surveys and meetings with women's community organisations showed that the sector requires urgent intervention. A sanitation component has therefore been included in the project. The major thrust of the program will be to generate much greater community awareness of sanitation and health linkages, and to improve sanitation practices. The experience of UNICEF sanitation programs in NWFP will be drawn upon, particularly in the education and training field, and UNICEF will provide partial funding for the software parts of the sub-component.

17. The physical elements of the sanitation program to be established under the project will have two main parts - incentives for on-plot sanitation and, on a pilot basis, pre-treatment ponds in two urban or peri-urban communities where sewerage systems exist. The on-plot sanitation program will generally be consistent with the UNICEF program, which has shown that incentives are needed to encourage householders to install appropriate toilet facilities. It is envisaged that, generally, double pit pour-flush latrines will be installed (most households either already have, or will have during the course of the project, an adequate water supply), where space is available, to designs approved by or provided by the PMU. The estimated cost of the sub-structure and slabs for such a facility is estimated at Rs.4000 (US$ 133) and it is proposed that 25% of the approved cost of the facility will be granted to the beneficiary in stages of its completion. The sub-component would aim to cover approximately 30% of households. The success of the sub-component will be dependent on the effectiveness of the health awareness and sanitation education sub-component.

18. Although desirable for health and environmental reasons, providing appropriate treatment facilities for the dry weather discharges from the storm drainage systems is not considered affordable at this time, as flows from many communities are small, stormwater discharges at a number of places, and efforts are being made under the program to reduce the sullage content of such discharges through the on-plot sanitation component. However it is considered important to begin to focus on sewage treatment, certainly in larger urban or peri-urban communities, and thus in two of the larger communities where there are high concentrations of sullage and sewage discharging from the stormwater drains, pre-treatment ponds would be constructed on a pilot basis to partially treat the polluted wastewater, and a program to monitor their operation would be established. This would assist GONWFP in framing a future wastewater treatment strategy for smaller communities in the Province.

Access and Circulation Local Infrastructure (Total Base Cost US$ 5.3 million - 14%)

19. In rural areas, access is provided through a network of narrow, generally unpaved paths, little more than a car's width across, sometimes flanked on one or both sides by open ditches. The main forms of traffic are hand or animal drawn carts and bicycles, as well as animals. The main access roads to urban settlements are more integrated with the town's road network and generally paved, although

often lacking maintenance. The network of roads and footpaths within urban settlements are similar to those in rural areas although carrying significantly more traffic.

20. Improvements within the programme are limited to paving of existing streets and footpaths. Appropriate functional planning, design and construction standards are to be used (See Annex 7). The materials proposed in road and footpath construction generally reflect locally used construction material, such as bricks. Concrete is used in steep slope locations and where storm water flows are significant. Asphalt or double surface dressing will only be used for access roads and wider streets.

Solid Waste Management Local Infrastructure (Total Base Cost US$ 0.2 million - 1%)

21. In rural areas, solid as well as human and animal waste is disposed of in "derans" (for compost) and, to a much larger extent, dropped or dumped in drains, outside the doors in the streets or on parcels of open land between houses. The amount of domestic waste generated in urban areas is significantly more and less suitable for re-use than in rural areas. Only the largest towns have a central system of solid waste management, with collection from the roadside, but often with inappropriate final disposal. Low income communities are generally not served in these towns. Under the ADB supported Second Urban Development Project (SUDP) solid waste management will be extended and improved in all major towns in NWFP.

22. Brick-built containers (collection points) primarily intended to reduce the spread of refuse by wind and animals will be constructed, and coverage has been designed to appropriate and consistent planning standards. Where sites are not forthcoming from the community, consideration will be given to the siting of the collection points on footpaths and minor streets, where space permits. Purchase of land for collection points sites is not likely to be necessary in view of this and the fact that communities have generally agreed to provide sites (approximately 4 sq.m. each). However, where this proves unavoidable, land may be purchased. Allowances for land acquisition in the project costs are sufficient to cover this eventuality. Local transportation (hand or animal drawn carts) needs in urban areas will also be provided as necessary.

B. COMMUNITY DEVELOPMENT (TOTAL BASE COST US$ 1.5 MILLION - 4%)

23. Community Development would consist of three sub-components as shown below:

(a) Community Mobilization/Capacity Building (Total Base Cost US$ 0.4 million - 1%). The project would support the following software activities to mobilize the community and to build capacity at the community level:

(i) Awareness/orientation campaigns (media, materials and hand outs). This would include development of Information Education and Communication (IEC) materials and mass media campaigns in order to familiarize various Government departments, local institutions and communities on the objectives of the project, its policy, approach and implementation strategy. Prospective targets for the campaigns include the staff of PMU, CLU, PIU, LGERDD, PHED, Local Councils, WAPDA and other line agencies likely to be involved in the Project, communities, NGOs, consultants, welfare organizations and CBOs. More than 50% of total population of the project communities (of which 50% female) would be served by this component.

(ii) Capacity building/meetings/CBO training. This would include mobilization, capacity building, organization and formation of CBOs which would then prepare, plan,

implement and manage their own infrastructure development programs, complementary non-formal education (with specific reference to women's education) and women's savings and credit funds. It would include assistance to help households access existing home improvement loans schemes. Over 16,000 members of CBOs (40% female) are to be oriented, trained and assigned various tasks.

(iii) Documentation (slides, videos, case studies). As the approach, strategy and implementation mechanism is innovative, it is necessary to document processes, analyze successes and bottlenecks, identify remedial actions and disseminate results. This component will provide resources, equipment, materials, logistics and other arrangements to monitor, record, analyze and prepare reports on various important activities; to prepare case studies on the findings including video and slides; and to arrange for dissemination within the province and outside.

(iv) Needs assessment/CAP meetings. This would include resources, survey materials, equipment and logistics for carrying out community needs assessment, including participatory rapid appraisals, household surveys and Community Action Planning (CAP) meetings.

(v) Cross visits/observation tours. This would include provision for inter community observation and study tours for members of CBOs, NGOs, PIU and Government departments. In selected cases, project members may visit similar projects in other provinces and other countries in the region. About 7,000 participants are expected to benefit from this activity.

(vi) Action research. This would include research on key topics including development and testing of participatory monitoring and evaluation systems, setting up a systematic learning system, and refinement of institutional options for effective, efficient and sustainable Project implementation.

(b) Health & Hygiene Awareness Campaign Program (Total Base Cost US$ 0.8 million - 2%). This component would include provision for information and awareness campaigns to assist women and communities to organize, identify, and solve existing health and hygiene related problems. Program delivery would be through participatory (face to face) and promotional (mass media, social marketing) methods including development of training materials, modules and hand outs. The program would include orientation and training workshops for health staff, LHVs, TBAs and PIU staff; youth school programs and cleanliness drives; production of video films, slides and other materials; and Knowledge Attitude Practice (KAP) studies.

(c) Support for Women and Young Children (Total Base Cost US$ 0.3 million - 1%) . This component would include action research through gender analysis on community education and socio economic aspects of women in three selected communities, before wider-scale implementation. It would incorporate detailed planning of activities, pilot implementation, CBO capacity building, and skill training. Implementation of pilot skill and livelihood development activities would be monitored and evaluated. The project would work in close coordination with the Women Division, NWFP office. The project would finance a female WID officer in each of the three sites for 18-24 months to assist womens groups and individuals.

C. DESIGN AND IMPLEMENTATION ASSISTANCE (US$ 5.7 MILLION - 15%)

24. For design purposes and to assist with implementing the project, Government would engage Consultants, contract staff and NGOs in addition to appointing incremental staff. The role of government staff would be primarily management and coordination, with contract/NGO staff carrying out most of the work in the communities. This component therefore comprises consultant and contract/NGO services, and establishing Community Infrastructure sections within the Project Management Unit in Peshawar and Project Implementation Units.

Technical Assistance (Total Base Cost US$ 2.4 million - 6%)

25. Consultants' services for: a) assistance with community mobilization, community development, and infrastructure planning, including liaison with UNICEF, creating awareness within communities of health and hygeine, and advancing the role of women in local development; b) detailed engineering design including engineering drawings, technical specifications and tender documentation; c) implementation support including participation in contract award, administration and supervision, overall management and engineering guidance, quality control, defining and establishing satisfactory O&M procedures; d) assistance in establishing systems and procedures for, inter alia, project management, procurement, reporting, project accounting, management of project finances, project evaluation; and e) training of PMU staff and communities as appropriate. The consultants will also provide social organizers (to supplement the 14 government social organizers) and will meet the expenses of community motivators.

Other Implementation Support (Total Cost US$ 3.3 million - 9%)

26. The establishment, equipping and operation of Community Infrastructure sections within the Project Management Unit in Peshawar and Project Implementation Units, mostly located at Divisional Headquarters. All costs are being treated as project investment costs (i.e. salaries and allowances of Government staff, recurrent operating costs and equipment); however only staff costs, vehicles, equipment and training would be eligible for IDA Credit financing equivalent to approximately the first two years total expenditure. Staff (Grade 16 and above) are allowed for the following[2/]:

Table 2: Senior Staff Posts

Item	Grade of Post	Staff # - PMU	Staff # - PIU
a)	Director General - Grade 20	1	-
b)	Director - Grade 19	2	-
c)	Deputy Director - Grade 18	4	3
d)	Assistant Director - Grade 17	10	7
e)	Supervisors - Grade 16	2	14

2/ Certain posts are only funded for part of the period (e.g. Director General, Deputy Directors PIUs) as other financing provision exists.

Phase 1 A Communities - Basic Data

ATTACHMENT

SUMMARY COSTS (base costs only, no contingencies)	District	Division	urban or rural	Total cost (Rs '000s)	Total cost ('000 US $)	%	Pop (cap)	Area (ha)	Pop. density (cap/ha)	Ave exp per cap (Rs/cap)	Ave exp per ha (th Rs/ha)
Dhamtour	Abbottabad	Hazara	r	5,670	189	6%	5,560	27	206	1,020	210
Ghalegay	Swat	Malekand	r	7,293	243	8%	7,245	80	91	1,007	91
Gujar Ghari	Mardan	Mardan	r	14,333	478	15%	16,318	100	163	878	143
Hazar Khawani	Peshawar	Peshawar	u	3,051	102	3%	7,190	40	180	424	76
Jabbi, Nizampur	Nowshera	Nowshera	r	3,209	107	3%	3,460	18	192	927	178
Kass Karoona	Mardan	Mardan	u	5,335	178	6%	11,840	61	194	451	87
Kot	Kohat	Kohat	r	9,626	321	10%	3,197	50	64	3,011	193
Munjai	Dir	Malakand	r	3,313	110	3%	2,690	30	90	1,232	110
Muryali	D.I.Khan	D.I.Khan	r	9,402	313	10%	7,125	58	123	1,320	162
Narian	Abbottabad	Hazara	u	8,027	268	8%	3,626	41	89	2,214	198
Oghi	Mansehra	Mansehra	r	2,984	99	3%	3,509	15	234	850	199
Tehkal Bala	Peshawar	Peshawar	u	8,345	278	9%	12,132	85	142	688	98
Titer Khel	Lakki Marwat	Bannu	r	8,869	296	9%	7,212	69	104	1,230	128
Wanda Khan Mhd	DIKhan	DIKhan	r	6,194	206	6%	3,394	30	113	1,825	206
TOTAL				95,651	3,186	100%	94,498	704	134	1,012	136
average:				6,832	228		6,750	50.3	142	1,220	149
standard deviation:				3,132	104		3,965	25.3	51	682	48
median:				6,743	225		6,343	45.3	132	1,013	153

Pakistan
NWFP Community Infrastructure and NHA Strengthening Project
Project Components by Financial Year

Total Including Contingencies
Pak Rupees Million

	1996	1997	1998	1999	2000	2001	Total
A. CI Primary Infrastructure							
1. Land	0.4	1.5	3.1	3.5	2.0	0.4	11.0
2. Trunk Infrastructure	20.2	52.1	116.1	111.9	36.4	0.0	336.7
Sub-Total	20.6	53.5	119.2	115.5	38.5	0.4	347.7
B. CI Local Infrastructure							
1. Access and Circulation	15.9	35.9	58.9	63.0	44.6	11.6	230.0
2. Water Supply	2.3	5.0	13.8	18.3	14.8	3.8	57.9
3. Drainage	10.5	25.6	44.7	46.5	32.6	8.5	168.4
4. Sanitation	5.2	19.1	33.9	32.4	23.2	6.0	119.9
5. Solid Waste Management	0.5	1.5	2.9	3.1	2.2	0.6	10.7
Sub-Total	34.4	87.0	154.1	163.4	117.5	30.6	587.0
C. CI Community Development							
1. Comm. Mobilisation/Capacity Building	3.8	4.4	2.5	2.6	2.8	1.5	17.4
2. Health & Hygiene Awareness	6.0	7.0	4.8	5.1	5.4	2.5	30.9
3. Women & Child Support	2.0	2.6	2.5	1.3	1.4	0.7	10.5
Sub-Total	11.7	14.0	9.7	9.0	9.6	4.7	58.7
D. CI Design & Technical Assistance							
1. Technical Assistance	0.0	55.9	34.6	0.0	0.0	0.0	90.5
2. Other Implementation Support	7.7	22.1	27.7	25.4	25.7	26.7	135.3
Sub-Total	7.7	77.9	62.3	25.4	25.7	26.7	225.8
E. Institutional Development							
1. Local Government Department	0.0	9.7	10.3	0.0	0.0	0.0	20.1
2. National Housing Authority	6.4	16.6	13.5	13.8	0.0	0.0	50.3
Sub-Total	6.4	26.4	23.8	13.8	0.0	0.0	70.4
F. Project Preparation							
1. Project Preparation Facility	42.2	0.0	0.0	0.0	0.0	0.0	42.2
Sub-Total	42.2	0.0	0.0	0.0	0.0	0.0	42.2
TOTAL PROJECT COSTS	**123.1**	**258.8**	**369.2**	**327.1**	**191.2**	**62.5**	**1,331.8**

Note: Some items may not add up to totals due to rounding.

PAKISTAN
NWFP COMMUNITY INFRASTRUCTURE AND NHA STRENGTHENING PROJECT
PROJECT COMPONENTS BY FINANCIAL YEAR

Total Including Contingencies
Dollars '000

	1996	1997	1998	1999	2000	2001	Total
A. CI Primary Infrastructure							
1. Land	13	44	91	101	57	11	317
2. Trunk Infrastructure	625	1,565	3,402	3,195	1,014	0	9,801
Sub-Total	638	1,609	3,493	3,296	1,071	11	10,118
B. CI Local Infrastructure							
1. Access and Circulation	490	1,080	1,727	1,800	1,242	316	6,655
2. Water Supply	70	149	404	523	411	104	1,661
3. Drainage	325	769	1,308	1,329	908	231	4,870
4. Sanitation	162	574	993	925	646	164	3,464
5. Solid Waste Management	16	44	84	88	62	16	310
Sub-Total	1,063	2,616	4,516	4,665	3,269	831	16,960
C. CI Community Development							
1. Community Mobilisation/Capacity Building	116	131	72	74	77	40	510
2. Health & Hygiene Awareness	186	212	141	146	150	68	903
3. Women & Child Support	61	78	72	38	39	20	308
Sub-Total	363	421	285	258	266	128	1,721
D. CI Design & Technical Assistance							
1. Technical Assistance	0	1,680	1,014	0	0	0	2,694
2. Other Implementation Support	238	663	812	725	714	725	3,877
Sub-Total	238	2,343	1,826	725	714	725	6,571
E. Institutional Development							
1. Local Government Dept.	0	293	302	0	0	0	595
2. National Housing Authority	197	500	395	394	0	0	1,486
Sub-Total	197	793	697	394	0	0	2,081
F. Project Preparation							
1. Project Preparation Facility	1,306	0	0	0	0	0	1,306
Sub-Total	1,306	0	0	0	0	0	1,306
TOTAL PROJECT COSTS	**3,805**	**7,782**	**10,817**	**9,338**	**5,320**	**1,695**	**38,757**

Note: Some items may not add up to totals due to rounding

Pakistan
NWFP Community Infrastructure and NHA Strengthening Project
Summary Accounts Cost Summary

	Pak Rupees Million			US $ Million				
	Local	Foreign	Total	Local	Foreign	Total	% Foreign Exchange	% Total Base Costs
I. INVESTMENT COSTS								
A. Land	8.7	0.0	8.7	0.3	0.0	0.3	0	1
B. Civil Works	403.5	273.8	677.2	12.7	8.6	21.3	40	67
C. Goods & Vehicles	9.1	15.4	24.5	0.3	0.5	0.8	63	2
D. Services	35.9	4.0	39.8	1.1	0.1	1.3	10	4
E. T.A. and Training	70.6	57.5	128.2	2.2	1.8	4.0	45	13
F. Staff Costs	86.1	9.6	95.7	2.7	0.3	3.0	10	9
G. Project Prep. Facility	10.1	31.7	41.7	0.3	1.0	1.3	76	4
Total BASELINE COSTS	624.1	391.8	1,015.9	19.6	12.3	31.9	39	100
Physical Contingencies	73.2	46.1	119.3	2.3	1.4	3.7	39	12
Price Contingencies	125.0	71.6	196.6	2.0	1.1	3.1	37	10
TOTAL PROJECT COSTS	822.2	509.6	1,331.8	23.9	14.9	38.8	38	121

Note: Some items may not add up to totals due to rounding.

PAKISTAN

NWFP COMMUNITY INFRASTRUCTURE AND NHA STRENGTHENING PROJECT

STAFF APPRAISAL REPORT

IMPLEMENTING AGENCIES

1. The Community Infrastructure Project (CIP) upgrading component will be implemented by the Local Government Elections & Rural Development Department (LGERDD) with the assistance of the Project Management Unit (PMU) of the Provincial Urban Development Board (PUDB). The National Housing Authority (NHA) will implement its institutional development technical assistance. The PMU will be responsible for the day-to-day activities of the infrastructure upgrading project component, and for this purpose the Director General of the PMU will report directly to the Secretary LGERDD. Figure 1 shows the organizational structure for the upgrading component.

2. Project Steering and Working Committees. Overall policy guidance, approval of individual community schemes, inter-agency coordination and monitoring of progress would be the responsibility of a project Steering Committee. The Secretary LGERDD will chair the Committee, which will meet at least quarterly, and will comprise the following membership:

> Secretary LGERDD - Chairman; Secretary Public Health Engineering Department (PHED); Secretary Physical Planning and Housing Department (PP&H); Additional Secretary Finance; Additional Secretary LGERDD; Additional Secretary Planning, Environment and Development Department; and Director General PMU - Secretary.

3. The Steering Committee will appoint a Working Committee for day-to-day coordination and monitoring. This will include coordination within PMU, especially between community mobilization, engineering and community development activities, liaison with line departments and local councils, monitoring implementation performance, identification of actions to address implementation bottlenecks, etc. The Additional Secretary LGERDD will chair the Committee, which will meet at least once in two weeks, and will comprise the following membership:

> Additional Secretary LGERDD - Chairman; Director Design and Implementation (CIP); Director Planning and Community Development (PMU); Deputy Director Monitoring and Evaluation; and Deputy Director Finance (PMU) - Secretary.

4. Local Government Elections & Rural Development Department. The Local Government Elections & Rural Development Department (LGERDD) has the overall responsibility for implementing the community infrastructure component of the investment. LGERDD has implemented various provincial infrastructure development projects under its rural development programmes, but has limited prior experience of donor-funded projects. LGERDD is the coordinating and supervising agency for the local government system. It is responsible, inter alia, for coordinating with local councils which, through their own resources, are responsible for the development, operation and

maintenance of infrastructure facilities within their respective areas. The Department implements a number of schemes on behalf of members of the National and Provincial Assemblies (MNA/MPA programmes). Its Local Government and Rural Development Department looks after special projects and the working of Union Councils in the province. Within the jurisdiction of LGERDD, the Local Council Board (LCB) was established in 1984 to serve as facilitator for the human resources and training functions for district councils, and for municipal and town committees in NWFP. Over the years, there has been a gradual transformation in the role of LCB and it has, in the last two years, begun to act as the principal regulatory arm of the LGERDD in respect of affairs of self-financed local government institutions in the Province. The organisation chart of LGERDD is presented in Figure 2.

5. Provincial Urban Development Board. The Provincial Urban Development Board (PUDB) is a corporate body that controls the province's Development Authorities. The Government of NWFP instructed the Physical Planning and Housing Department (PP&H) to create PUDB in 1974, and assigned PUDB the task of: (1) establishing a system of urban planning; (2) integrating physical, economic, and social planning at all government levels; and (3) creating an institutional framework capable of sustaining these activities.

6. Project Management Unit. An existing Project Management Unit (PMU) within PUDB will be the organizational unit responsible for planning, designing and implementing the upgrading component. The PMU was established in 1989 for the Asian Development Bank's Second Urban Development Project (SUDP), which is currently underway in seven major NWFP cities. The PMU staff consists of employees drawn from PUDB, the LGERDD, and the Public Health Engineering Department (PHED). The PMU is responsible for undertaking and coordinating projects that exceed the jurisdictions of individual Development Authorities. The PMU has seven Division level Project Implementation Units (PIUs), each headed by a Deputy Director, and within these PIUs a cell would be created for CIP. The staff responsible for the CIP in each PIU would include: an Assistant Director, an accountant, a sub-engineer, a draftsman and a Social Organizer Coordinator. Several key PMU personnel, including the DG, the Personnel and Administration Superintendent, PIU Deputy Directors, and PIU accountants will be responsible for both the CIP and the SUDP. All other CIP staff will not have dual responsibilities to ensure that they will be able to devote their full attention to the CIP.

7. Although the PMU is created under the Physical Planning and Housing Department, the Government of NWFP has directed the PMU to report to the Secretary LGERDD for the purposes of this project. The DG PMU oversees the day-to-day operations of the program and is responsible for coordinating the actions of the Director Planning and Community Development, Director Design and Implementation, Deputy Director Finance, Deputy Director Monitoring and Evaluation, and Personnel and Administration Superintendent.

8. The Planning and Community Development Director has the overall responsibility for community involvement in identifying infrastructure and community development needs and priorities. This will include building up community organizations, creating awareness within communities of health, hygiene and environment, site selection, socio-economic and topographical surveys, needs assessment and conceptual design, initial costing and assessment of affordability of infrastructure. The Director is also responsible for advancing the role of women in the project-assisted development,

and for coordination with UNICEF. He is assisted by a Community Development Deputy Director and a Planning Deputy Director. Planning and Community Development staff will work with Social Organizer Coordinators and Implementation Assistant Directors at the Division PIU level as appropriate. The Design and Implementation Director has overall responsibility for preparation of engineering designs, bills of quantities, cost estimates, and basic procurement documentation. Through PIUs, the Director will be involved in procuring works, contract management and administration, supervising construction, and helping communities to plan and prepare for operation and maintenance. His two Deputy Directors for Implementation Coordination will work with Implementation Assistant Directors and Sub-Engineers at the PIU level.

9. The Finance Deputy Director, assisted by the Accounts Assistant Director and Audit Assistant Director, is responsible for all project accounting and internal auditing, and will manage the special account. The Finance staff will work with the PIU accountants and the community to develop accounting systems at the community and divisional level, and to establish procedures for paying contractors, managing community project accounts, and budgeting. Government accounts will be audited by the Auditor General Pakistan. Commercial auditors will audit communities' accounts.

10. The Deputy Director, Monitoring and Evaluation will be responsible for preparing routine monitoring reports, including monitoring key performance indicators. He will also be responsible for initiating and managing community-based evaluation and impact assessments.

11. Social Welfare Department and Women's Division. PMU, through the Directorate of Planning and Community Development, will maintain close liaison with the Social Welfare Department and the Women's Division. The Social Welfare Department's responsibilities include: training and rehabilitation of the handicapped, orphans, widows, and the destitute; women's welfare; and relief during natural calamities. The department sponsors projects such as community centers and industrial homes, and is responsible for promoting the formation of community organizations and for registering NGOs. The Women's Division's activities have focused on basic studies and programme formulation in the areas of adult education, literacy, health, nutrition, agricultural extension, and skill training. The Division, which is totally dependent on federal funding, has helped establish a number of NGOs, social welfare organizations, and multi-purpose community centers.

12. National Housing Authority. The National Housing Authority (NHA) was created as an arm of the Ministry of Housing and Works in 1987 to address the growing housing shortage in Pakistan. A major purpose of NHA is to advise on policy matters. It is regulated by a Board of Governors, headed by the Prime Minister, and has an Executive Committee chaired by the Minister Housing and Works. NHA has a Director General, supported by a Deputy Director General, Directors and Deputy Directors. The main functions of NHA include: preparing policies and policy guidelines; coordinating programs between provinces; research, monitoring and evaluation related to the housing sector; mobilizing resources (including from donors); arranging land for housing; dissemination of information; and emphasizing the shelter needs of low-income groups.

PAKISTAN

NWFP COMMUNITY INFRASTRUCTURE AND NHA STRENGTHENING PROJECT

STAFF APPRAISAL REPORT

PROJECT DEVELOPMENT PROCESS - DETAILED PROCEDURES

I. PRE-PREPARATION PHASE (3 months)

1. Identification, Selection of Project areas: The first stage would be the preparation by the PMU through the Directorate Planning and Community Development (P&CD) staff and PIU social organizers of the indicative plan to identify potential areas for improvement. This would be generally done through a reconnaissance and desk studies of primary and secondary information, physical resource data necessary for technical planning and design, socio-economic data, etc. The indicative plan would thus define general locations where: (i) depressed and low income areas including poverty pockets are located; (ii) physical resources are available (land, building space, etc); (iii) there is an apparent need for basic infrastructure services, health and hygiene education, and socio-economic programs. The indicative concept plan would be the basis to guide the P&CD to organize the formation of the Project Committee, and prepare the Community Action Plan (CAP) for funding support.

2. Project Initiation, Information to Communities and Local Government Officials: The P&CD/PIU would contact the local officials which would be involved in area prioritization and establishing initial contact with the community to ascertain likely community response and participation. The local authorities together with the community leaders and representatives of various community based organizations (CBO) would confirm with the members in their areas that upgrading development through government intervention is required and that the community and users would be willing, in principle, to accept the responsibilities and costs that they would incur if their community was to be served. The indicative plan or tentative program would be presented at this stage to the community. A cross-check of likely community response would be made by P&CD through review of the operational performance of any existing government and private financed facilities (water supply, drainage, toilet, cooperatives, savings groups) in the vicinity of the selected areas. During this stage initial orientation and motivational activities would be undertaken, with the final output of a written request from the community agreeing in principle on responsibilities and a commitment to be involved in project planning, implementation and O & M responsibilities.

II. PARTICIPATORY PLANNING (6-9 months)

3. Needs Assessment, Preparation of Community Action Plan (CAP): This stage starts with a needs assessment including: community self survey, affordability analysis, and preparation of the community through continuous motivation and leadership training. During this stage the community would be required to agree a representative organization and to participate in CBO formation efforts. Also the various technology, service level-options and community development programs would be presented for choice. This would be followed by the preparation of a CAP by the community, with assistance from the P&CD/PIU. The CAP would include a package of physical, social, health and hygiene education, and economic skill training programs, including an environmental impact assessment. It would cover: (i) CBOs organizational structure, project related committees, membership, responsibilities, women's groups, registration; (ii) assessment and the locations of areas to be upgraded and communities proposed to be developed and assisted; (iii) selected physical (type of infrastructure and facility), community development program (socio-economic, health and hygiene education and training) and priorities under which the program would be implemented; (iv) an investment plan including costs, showing government and community contributions and a time table for resource mobilization; (v) arrangements for collection, safekeeping and accounting for the community's contribution; and (vi) an implementation plan including arrangements on timing and scheduling for procurement, supervision and monitoring and evaluation. The CAP in each community would be developed in two steps:

Step 1: Confirmation of Community Programs

A sketch map and a full description would be prepared for each community or group of communities showing: (i) the locations of areas and housing/structural conditions; (ii) the locations of existing government facilities (public water and sanitation facilities, markets, etc); (iii) the locations of areas including poverty pockets proposed by local leaders and communities for development; and (iv) major population centers and roads. Other information required includes the technical and design characteristics of existing government facilities, a description of the health situation, socio-economic development opportunities, and an affordability analysis for both the community and the concerned local councils. Compilation of information together with field checking of the community's proposal would permit confirmation or modification of an improvement program and definition of the type(s) of basic services, infrastructure facilities and other community development programs (software activities) to be provided. For developing a confirmed program, special attention would be given to use of appropriate planning criteria and design standards (e.g., water supply and sanitation facilities, footpaths, etc.,).

Step 2: Development of Local Programs

Once the community improvement program confirmation process is completed, these can be assembled, as appropriate, to form a number of sub-projects or areas which together form the local program. It will then be necessary to decide the priority of developing the sub-project areas, taking into account: (i) preparedness and commitment of the community; (ii) the location and contracting constraints; and (iii) the necessity to coordinate with the other line agencies regarding their programs. The outcome of the discussions would be an annual work program for the locality, subject to some modifications during the planning and design process for the finally selected sub-project areas.

4. Detailed Preparation and Planning: Each CAP is further developed to specific physical infrastructure, and community development programs. For physical infrastructure, the PMU/PIU administers the preparation of the detailed designs, specifications and engineering designs including presentation to community on final designs, confirmation of priorities and phasing of infrastructure components for implementation. For community development programs (socio-economic health and hygiene education programs), the P&CD/PIU prepares the final and detailed programs and arranges the funds. Following the signing of the Memorandum of Understanding agreement (MOU) with the community, the technical work on design and procurement is prepared.

5. The MOU would require the community to: (i) identify specific user groups or associations, and their responsibilities including registration; (ii) arrange and provide land or building space for a specific purpose (individual/group toilets, water supply, market, income-generating activities) as indicated in the CAP; (iii) provide cost shares, including cash contributions to capital costs; (iv) provide resources for contract supervision and administration; and (v) assume responsibility for O&M management and payments. Similarly, the project agency would undertake to: (i) provide its share of finance for the capital costs of basic services and programs identified in the CAP; (ii) implement the agreed CAP together with the community; (iii) involve the CBO/Project Committee in the design of the specific components; (iv) arrange construction of physical infrastructure by private contractor, including as appropriate community resources and labor; (v) provide training and technical advice to community groups on O&M, management and financing, skill training; (vi) assist establishing appropriate arrangements O&M for specific infrastructure (eg., piped water supply), including contractor support for a limited period (within one year) prior to handing over of completed facilities; and (vii) for line agencies to accept responsibility for major repairs on an exceptional basis (major roads, water supply system).

6. Community Organization and Development: The organization of the community and the different user groups would build on other successful formal and informal user groups, supported by local councils and any existing CBOs. The P&CD/PIU would assist the community to establish a CBO Project Committee and user groups. The CBO in each community (representing the user groups) would make a written request for their improvement and agree to form user groups, contribute to construction and take over

responsibility for O&M. The PIU would coordinate with the P&CD and would be primarily responsible in assisting the CBO in the formation of the user groups.

7. During the preparation phase, orientation and participatory training would be carried out by P&CD/PIU focussing on: (i) identifying the roles and responsibilities of the CBO and user group members with particular focus on women in the development process; (ii) organization and registration of the users/associations; (iii) management of the user organizations, finances and O&M activities, including operator training for water supply and sanitation facilities; and (iv) hygiene and sanitation education and other entry level activities (e.g., skill training, NFE, group savings).

III. **IMPLEMENTATION STAGE** (three phases of up to 6-12 months each)

8. Implementation of Works: The fourth stage would involve implementation of the CAP in each community comprising a package of physical as well as community development programs for phased implementation. The implementation of various community development programs is at fullest at this stage including O&M training. While the procurement and construction management of the type A (primary infrastructure) and type B (typical secondary and tertiary infrastructure) will be the primary responsibility of the project agency, involvement of the CBO would be sought during the construction, supervision and certification of completion of work phases. For civil works, the PIU prepares the tender documents and bidding. A procurement team, including a CBO representative, administers the procurement process and awards the contract. The CBO, with technical assistance from PIU, supervises the execution works. For type C (simple and small tertiary infrastructure) works to be implemented by through community self-help, similar interaction would take place including provision of technical advice from PIUs.

IV. **HANDOVER, O&M, MONITORING STAGE** (6-12 months)

9. Commissioning of Public Facilities for Handover to User Groups: A rigorous procedure would be applied by the PIU together with the concerned government agency for testing the operational capability of all completed infrastructure facilities against intended design standards before they are handed over to their respective user groups/associations. Any faults detected during the testing procedure will be corrected before the handover is made. Representatives of the local government units and the CBO will observe the tests.

10. Initial O&M Support, Monitoring: After the completion of the facilities, the project staff would remain associated with the community for a period of six months to one year to train user associations on their management and O&M activities, assist rectify structural works, and coordinate community development inputs and support activities being carried by other sectoral agencies. The handover period would also involve regular monitoring of the various community development programs, functioning of facilities and review of the need for modifications or repairs to major structures as requested by the CBO/user groups.

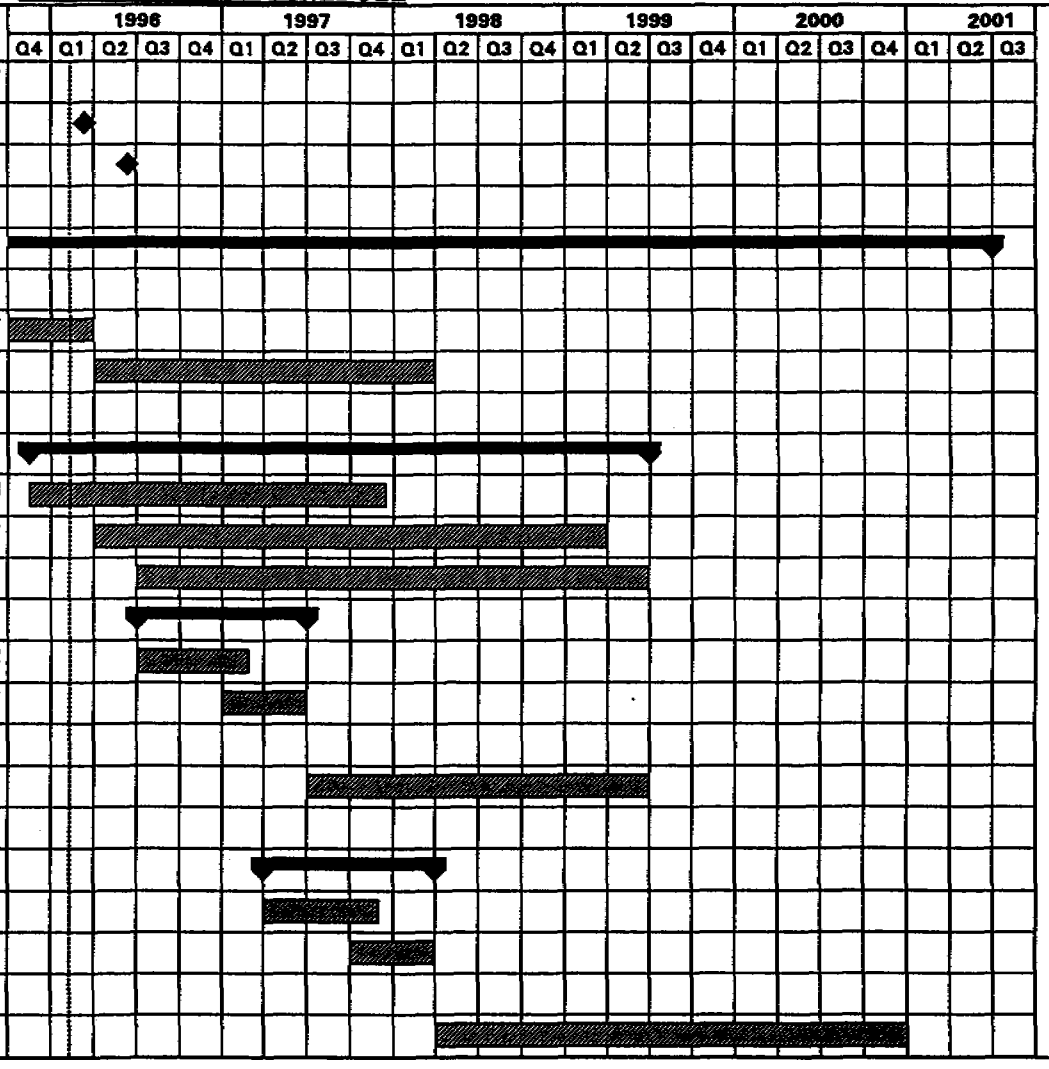
11. Long Term O&M Support: After the initial O&M support phase, support to the user groups/ association would be carried out through the regular local government/line agencies who

would continue to monitor functioning and management of the facilities and programs, and provide technical guidance on a needs basis.

12. Community Development Programs: During this period other socio-economic, health and hygiene education activities would continue to take place. These might include, according to circumstances and the types of programs offered by other agencies: (i) institutional and other incentive schemes which the project, in coordination with the banks, other sectoral agencies, NGOs including Unicef may make available; (ii) management and skill training/job placement; (iii) arrangements for product marketing, credit programs for home improvements, sanitation, productive enterprises, etc; (iv) advice on the advantages and initiatives needed for the user groups to avail of group or individual credit; and (v) advice and participation on various NFE, business and income-generating skills.

PAKISTAN
NWFP COMMUNITY INFRASTRUCTURE AND NHA STRENGTHENING PROJECT
STAFF APPRAISAL REPORT
IMPLEMENTATION SCHEDULE

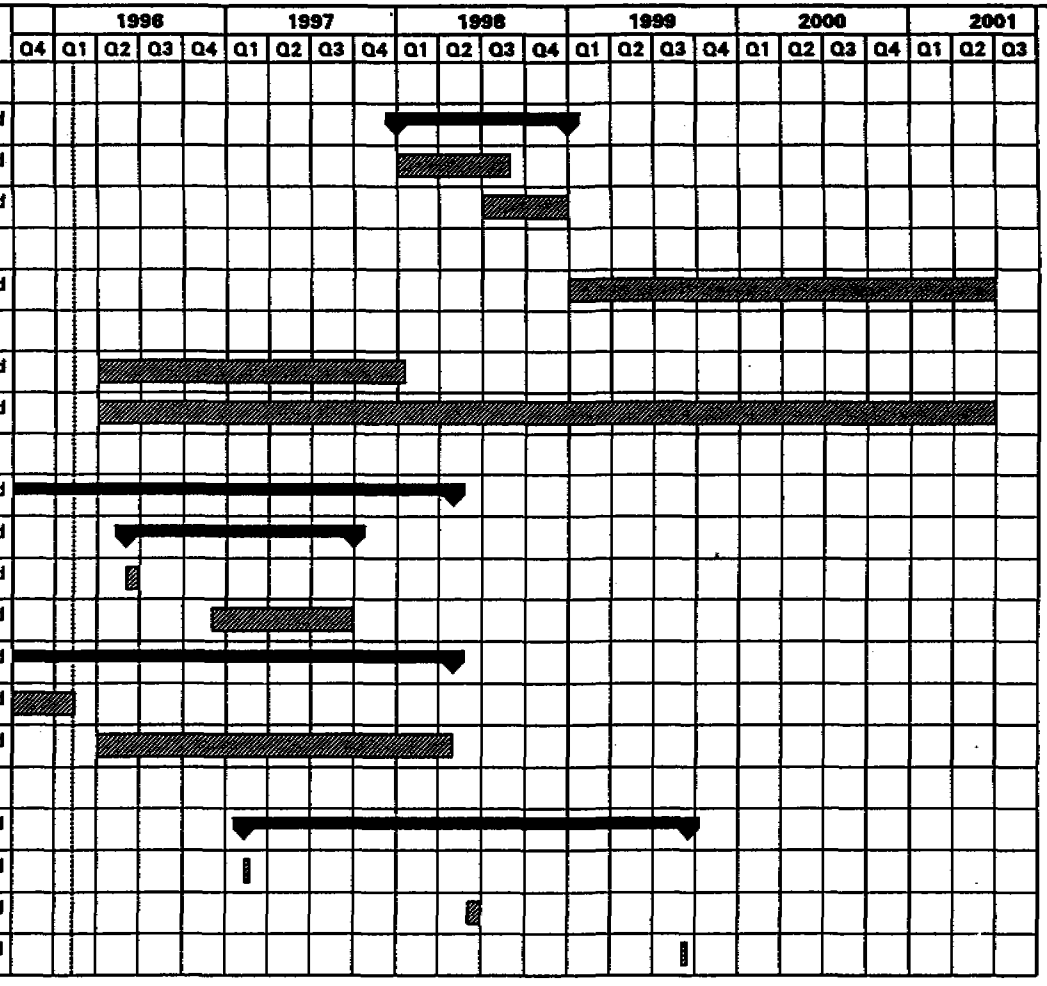
ID	Name	Duration
1	Credit Negotiations	5d
2	Board submission	0d
3	Credit Effectiveness	0d
4		
5	Community Infrastructure	1826d
6	Implementation Pilot Projects (2) - Completed	107d
7	Training CLU, CBOs, LCs: Initial Programme	456d
8	Training, Follow-up Programme	522d
9		
10	Implementation Phase I	945d
11	Implementation Phase I - 1 (6 sites)	544d
12	Implementation Phase I - 2 (8 sites)	782d
13	Implementation Phase I - 3 (6 sites)	782d
14	Preparation Phase II - A (13 sites)	262d
15	Community Mobilisation	173d
16	Project prep and designs	130d
17		
18	Project Implementation Phase II - A	522d
19		
20	Preparation Phase II - B (14 sites)	261d
21	Community Mobilisation	175d
22	Project prep and designs	130d
23		
24	Project Implementation Phase II - B	719d



Project: CIP - NWFP
Date: 2/7/98

Critical
Noncritical
Progress
Milestone
Summary
Rolled Up

ID	Name	Duration
25		
26	Preparation Phase III - A (8 sites)	261d
27	Community Mobilisation	173d
28	Project prep and designs	132d
29		
30	Project Implementation Phase III - A	651d
31		
32	Design & Implementation Assistance	470d
33	Community Participation Programme	1370d
34		
35	Institutional Development	761d
36	LGERRD Study	346d
37	Appoint Consultants	20d
38	Prepare Study	216d
39	NHA Technical Assistance	761d
40	Appoint Consultants	186d
41	Provide TA	544d
42		
43	Formal Reviews	677d
44	Biennial Review	10d
45	Mid Term Review	21d
46	Biennial Review	10d



Project: CIP - NWFP
Date: 2/7/96

Critical
Noncritical
Progress
Milestone
Summary
Rolled Up

UPGRADING COMPONENT - OVERALL EXPENDITURE SCHEDULE CIP - NWFP

Phase IA:

Primary:	27,047	Rs '000s
Sec/Tert	68,603	Rs '000s
Total IA	95,650	Rs '000s

Phase IA		14
Phase IB		6
Phase II		27
Phase III		8
Total		55

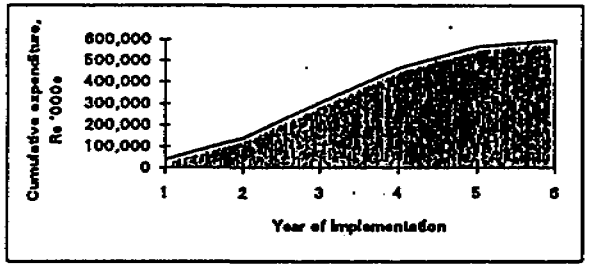
***EXPENDITURE PATTERN** Phase IB, II and III*

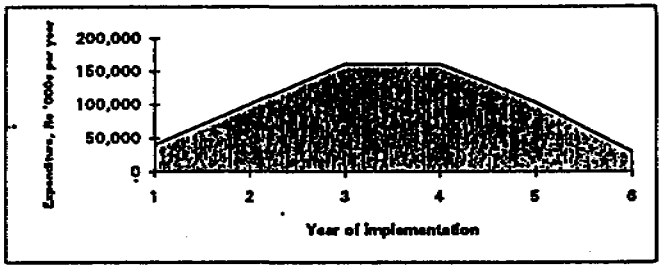
Basis for extrapolation

Sites:	41	sites	Primary:	4,658 Rs '000s/site
Ave site :	67.7	ha	Sec/Tert	7,603 Rs '000s/site

	Duration	Lag (yrs)		1996	1997	1998	1999	2000	2001	Total
Phase IA	3 yr		Primary	50%	50%					100%
			Sec/Tert	20%	40%	40%				100%
Phase IB	3 yr		Primary	30%	70%					100%
			Sec/Tert	10%	40%	50%				100%
Phase IIA	3 yr		Primary		20%	80%				100%
			Sec/Tert		10%	40%	50%			100%
Phase IIB	3 yr		Primary			20%	80%			100%
			Sec/Tert			10%	40%	50%		100%
Phase III	3 yr		Primary				30%	70%		100%
			Sec/Tert				10%	40%	50%	100%
Total										

No.		1996	1997	1998	1999	2000	2001	Total
14	Primary	13,524	13,524					27,047
14	Sec/Tert	13,721	27,441	27,441				68,603
6	Primary	8,385	19,564					27,949
6	Sec/Tert	4,562	18,246	22,808				45,616
13	Primary		12,111	48,445				60,556
13	Sec/Tert		9,883	39,534	49,417			98,835
14	Primary			13,043	52,171			65,214
14	Sec/Tert			10,644	42,575	53,219		106,437
8	Primary				11,180	26,086		37,265
8	Sec/Tert				6,082	24,329	30,411	60,821
55	Cum	40,190	100,770	161,915	161,425	103,634	30,411	638,344
		7%	17%	27%	27%	17%	5%	100%





Design consumption:	60 lcd (rural), 75 lcd (urban)
Storage:	35% of average daily consumption
Design Peak factor:	1.5

4. Tubewells, trunk lines and reservoirs are considered as primary infrastructure. Tubewells will be constructed to regular PHED standards. The main pipeline from the tubewell or spring to the reservoir or direct to the community will be constructed with galvanised iron pipes up to 150mm diameter laid with a cover of between 0.5 and 1.0 metre. The distribution system within communities will generally be constructed from galvanised iron (25mm to 100 mm dia) pipes depending on capacity required with a cover to the top of pipes of generally 0.75 metre.

B. Sanitation

5. The sanitation component will comprise three main elements: (a) a health and sanitation awareness program, established with the assistance and cooperation of UNICEF, and concentrating on training and health and sanitation education; (b) the establishment of an on-plot sanitation program with incentives (equivalent to a 25% matching grant) for households who are prepared to construct an on-plot, pour flush latrine; (c) provision of simple primary treatment facilities (oxidation ponds) in areas where there are large concentrations of sewage discharging to watercourses via the stormwater drainage network. Particular focus will be given to on-plot sanitation programs where land, topography, accepting watercourse and climatic constraints prohibit the provision of a suitable and affordable communal disposal/treatment facility. Details of the respective elements are set out below.

6. Double-pit household pour-flush latrines will be encouraged in all communities provided that there is a low groundwater level (at least 2 metres below the underside of the leaching pit), that underlying rock is at sufficient depth and tests determine that leaching can take place. The leaching pits will be approx 1.0 metre dia x 1.4 metre deep as may be determined as a result of tests. In the event that there is a poor response to household latrines, community public 4-cubicle dry pit latrines will be tested, again provided that there is a low groundwater level and that underlying rock is at sufficient depth. Ownership will be offered to determine acceptability.

7. Provision for sullage or grey water will be via the stormdrainage system with acceptable outfall arrangements (see D below). Uncontrolled contamination of sullage water by human waste should be reduced by the encouragement of on-plot sanitation through improved latrines (see above). Sewerage will only be considered in urban areas with high water consumption (> 120 lcd) and high population density (> 150 persons/ha). The present level of funding (and community affordability) is not likely to allow for sewerage components within the project unless primary infrastructure such as a trunk sewer (and associated sewage treatment plant) with adequate spare capacity is available locally or if there is a perennial large-flow outfall available. Designs for sewers will provide adequate slope to ensure a self-cleansing velocity of 0.6 m/sec once per day and adequate facility for system flushing once per week. Any sewerage system augmentation will be constructed with concrete pipes made with sulphate resisting cement. Treatment would be considered if land is available for a local area stabilisation/oxidation pond or septic tank.

C. Solid Waste

8. Improved solid waste management will be achieved by improved operation and maintenance through community-based arrangements. Investment in facilities will likely be small and limited to: (a) the construction of open, brick built, collection containers of approximately 7 cubic meters capacity; and (b) in rural areas, advice on the location of disposal sites. In rural communities, in view of the limited volumes of solid waste remaining to be disposed of (the majority of rural waste is recycled), bulk transport will not be necessary. If communities do require periodic haulage they will mobilise agricultural tractors and trailers. However, for permanent disposal from urban communities, linkage will be made with the city-wide waste collection and disposal systems. (Other projects provide solid waste management systems in most of the major towns in NWFP.) Where the current disposal arrangements are inadequate, provision of additional waste containerisation facilities will be provided. For design purposes, the volumes of solid waste generated in urban areas is based on 1.2 litres per person per day and in rural areas, 1.0 litre per day.

D. Stormwater Drainage

9. The minimum requirement is for adequate drainage, in flat or plain areas, to access roads, minor streets and footpaths. In general, drains will be provided in the centre of footpaths, and on one side or on both sides of roads dependent on need and space availability.

10. Design capacity for all channels will take into account a sullage volume equivalent to 80% of the amount of the potable water supplied and, in addition, for tertiary drains, local rainfall run-off. For larger areas, the capacity of primary and secondary drains will be calculated from the catchment area and rainfall intensity. Run-off will generally be calculated using a maximum storm intensity of 50 mm/hour (for smaller areas) representing a 1-year return period, plus an allowance for sullage (dry weather flow).

11. Drainage channels will consist of either concrete semi-circular or "V" shaped channels or rectangular channels of plastered brick on a concrete base and cunette. Where such channels are liable to carry sullage water including significant volumes of raw sewage, sulphate resistant cement shall be used in the construction. Where possible, drainage gradients will be such as to ensure a self-cleansing velocity of 0.6 m/sec at peak flows. Connections from houses will be via small concrete surface channels or 75mm or 100mm pipes. One of four sizes of drains will be constructed depending on anticipated flow volumes.

12. The provision of flood protection works to divert stormwater away from or around a community, or, where neither solution is practical, to channel and control flood flows through a community, may be included where considered a community priority. Designs will be prepared on a case-by-case basis and are expected to involve stone masonry and concrete work.

E. Roads and Footpaths

13. The planned service level target for access and circulation is to provide for all weather access to 100% of houses within the communities. Three typologies have been considered, vehicular access roads, minor streets and footpaths. The geometric standards for each typology are as follows:

Type A- Vehicular Access Roads: 2.5m width or over;
Type B- Minor Streets: between 1.5m and 2.5 m width; and
Type C- Footpaths: less than 1.5m width.

14. Alternative construction standards are to be allowed to give the communities a choice. In hilly areas where there are steep slopes, concrete surface treatment will be adopted rather than brick. Also where soils are found to be weak, a sub-base will be constructed.

15. The construction of roads and footpaths within communities will be closely integrated with existing drainage or constructed together with proposed drainage.

G. Street lighting

16. In principle the provision of street lighting will only be considered in urban areas and it is unlikely to be a component chosen by respective communities (none of the 14 Phase 1A communities chose streetlighting). However, in rural communities, community preference for street lighting, based on a perceived priority for reasons of security, may be considered.

17. Lighting will be pole-mounted, wall-mounted or mounted on existing power lines at strategic points and will not necessarily give full coverage. Lamps will be fluorescent bulbed. Cabling between lights will be via ducts set in concrete or overhead.

Attachment:

Design and Construction Standard Details

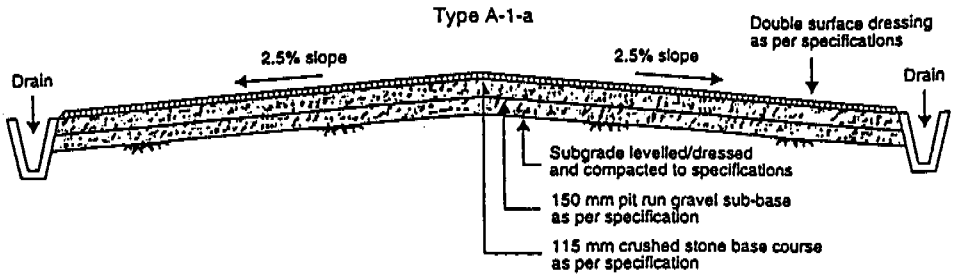
N.W.F.P. Community Infrastructure Project Design and Construction Standard Pavement

Vehicular Access Routes

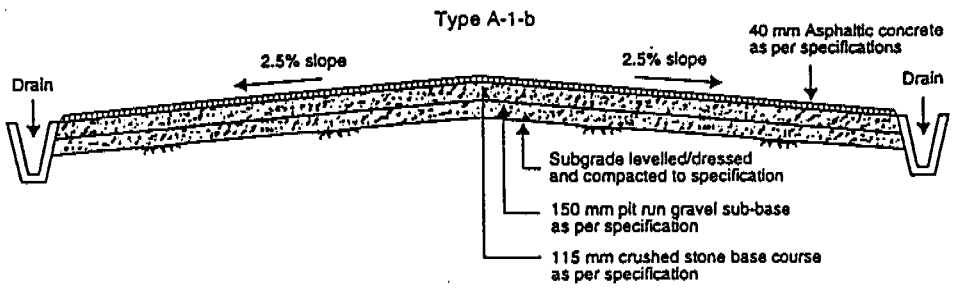
Typically 2.5 m<w<3.5m

In Plain Areas

Type A-1-a

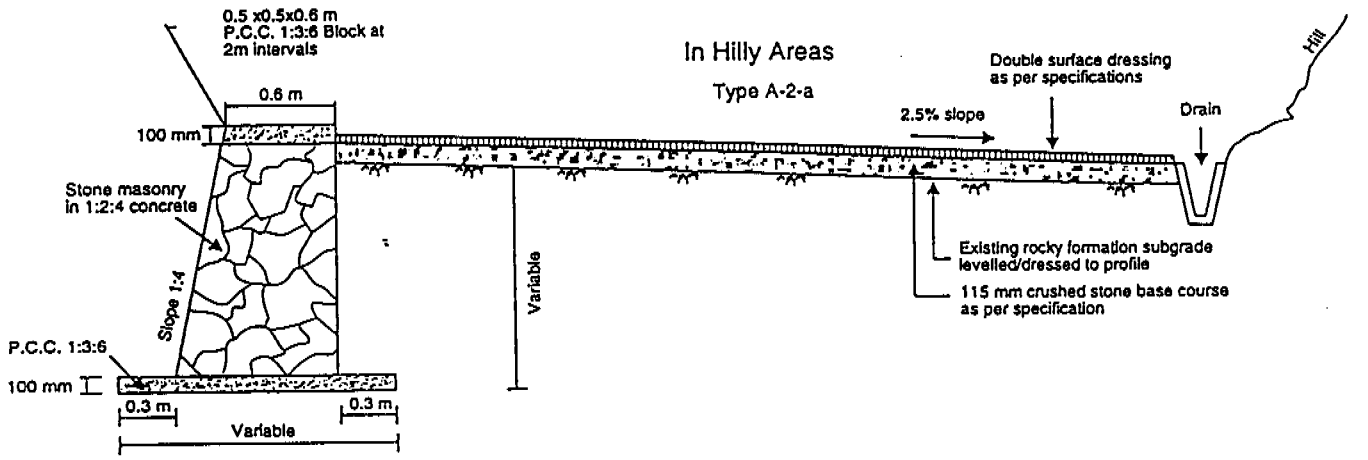


Type A-1-b



In Hilly Areas

Type A-2-a



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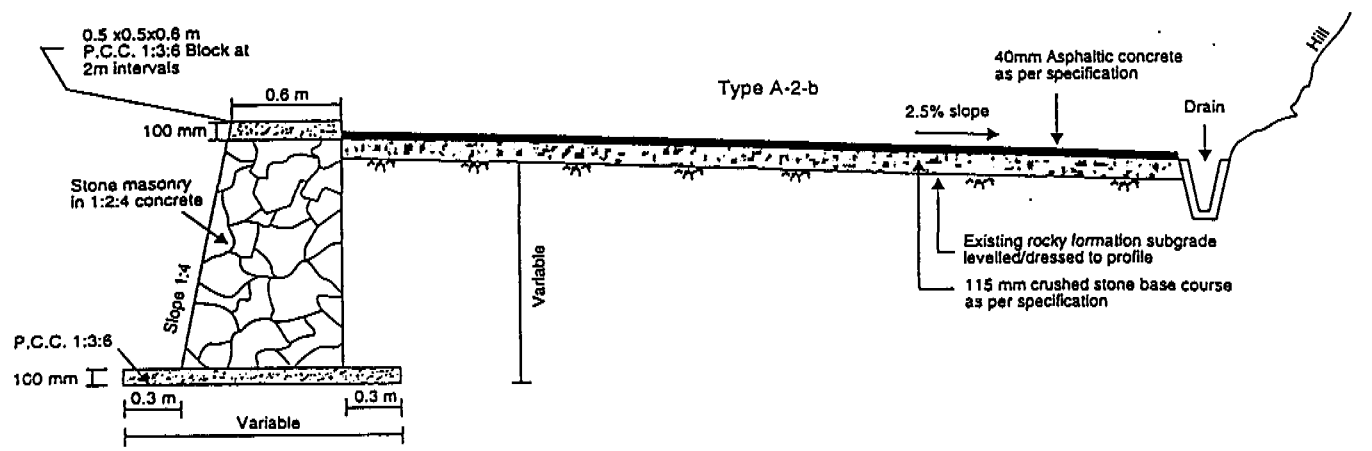
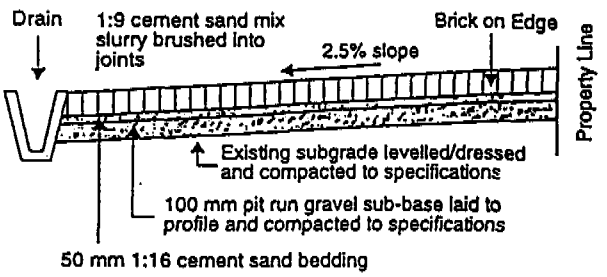


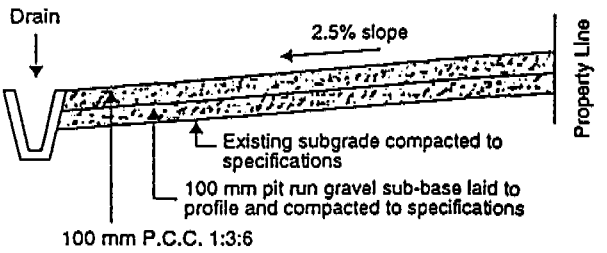
N.W.F.P. Community Infrastructure Project Design and Construction Standard Pavement

Minor Streets
Typically 1.5 m<w<2.5m

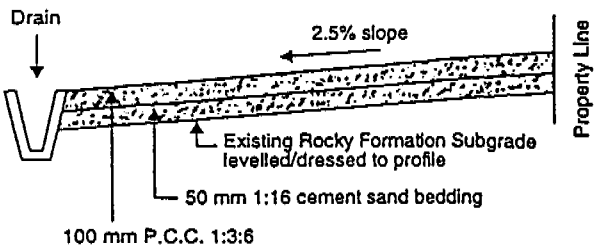
In Plain Areas
Type B-1-a



Type B-1-b

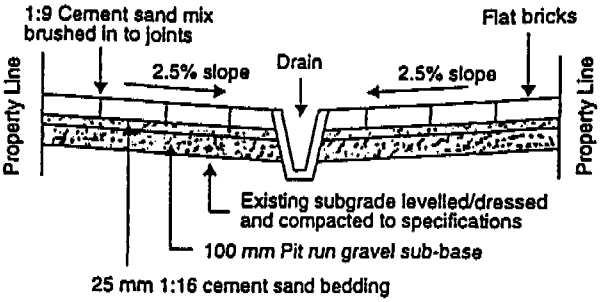


In Hilly Areas
Type B-2

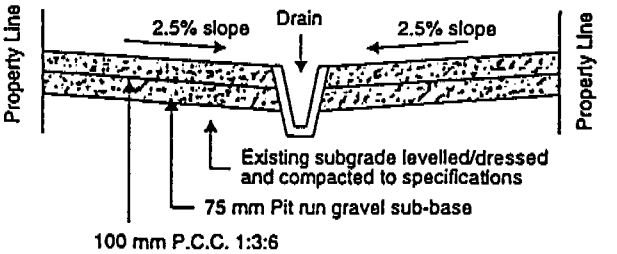


Footpaths
Typically w<1.5m

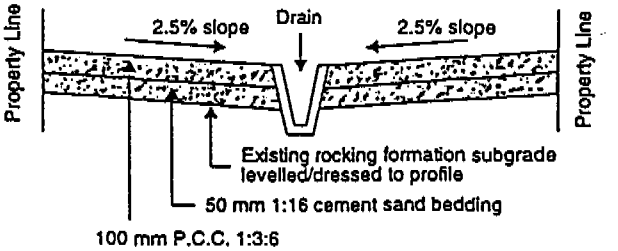
In Plain Areas
Type C-1-a

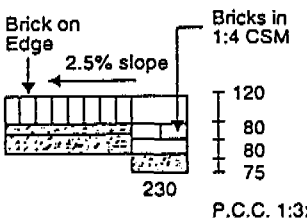


Type C-1-b

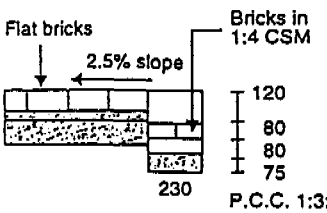


In Hilly Areas
Type C-2

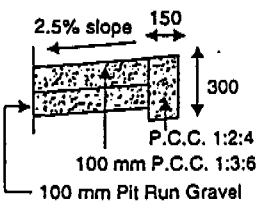




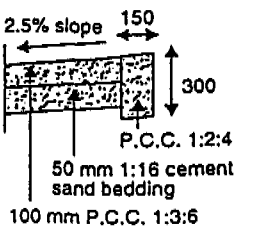
Brick on Edge Pavement



Flat Brick Pavement



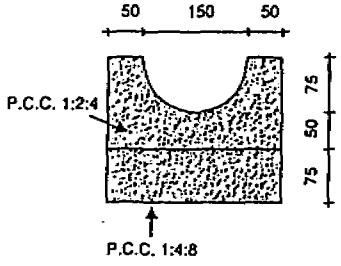
Type C-1-b



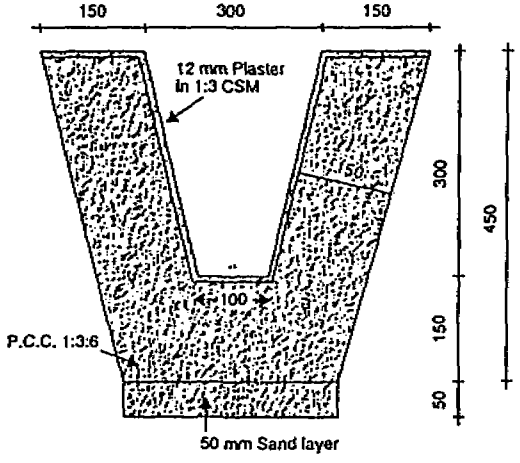
Type C-2

Edge Details of Street

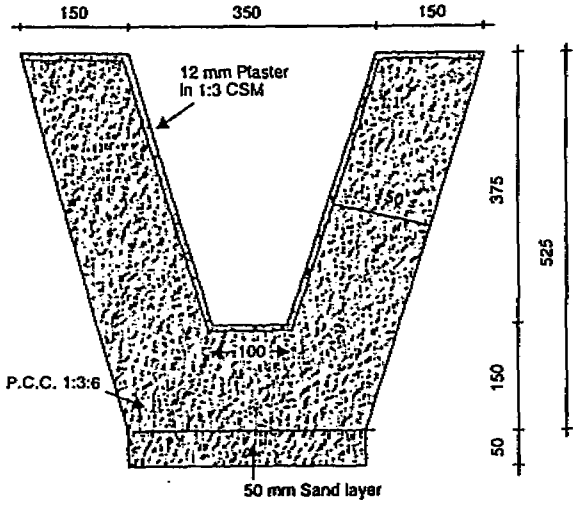
N.W.F.P. Community Infrastructure Project Design and Construction Standard Storm Water Drains



Type 0
(Scale 1:20)



Type 1



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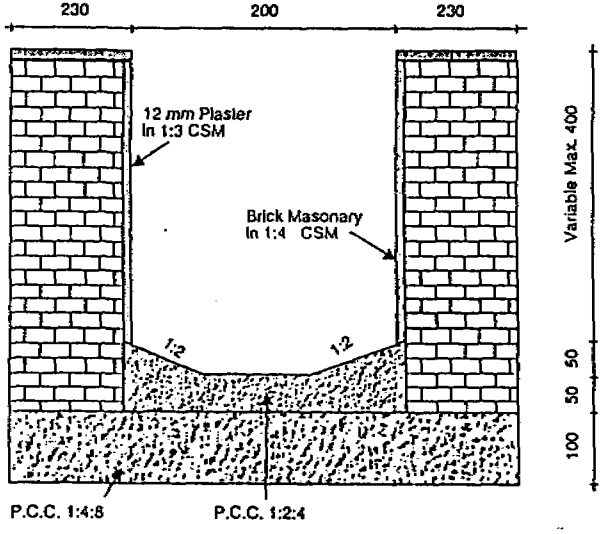

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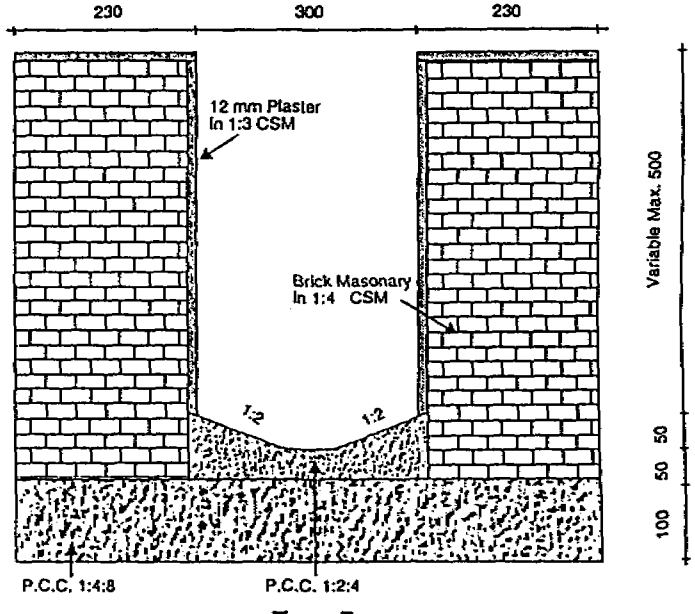

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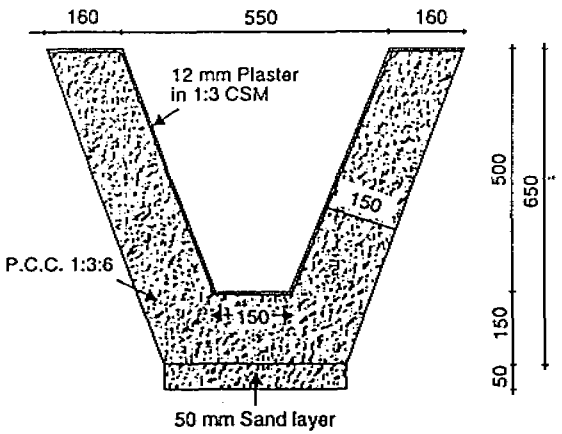

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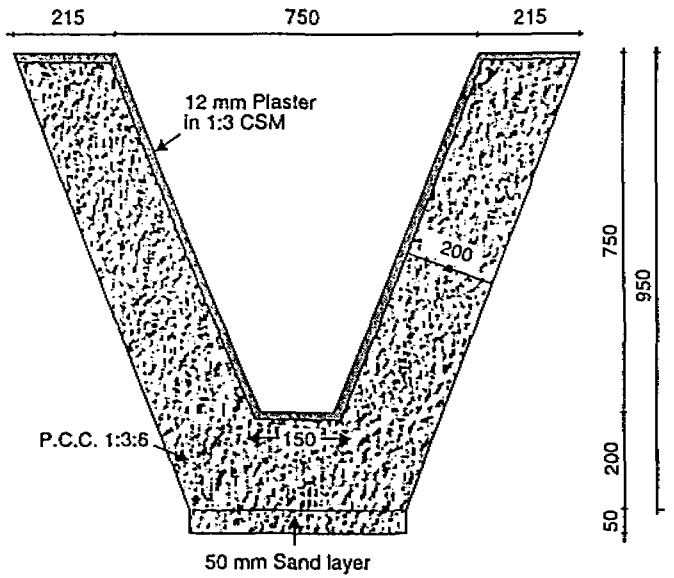

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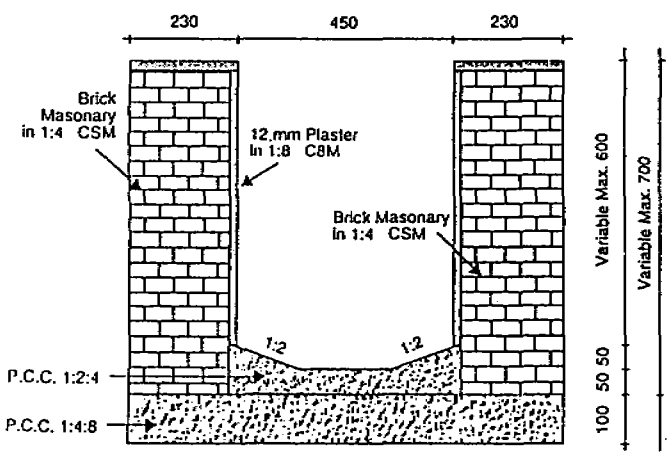

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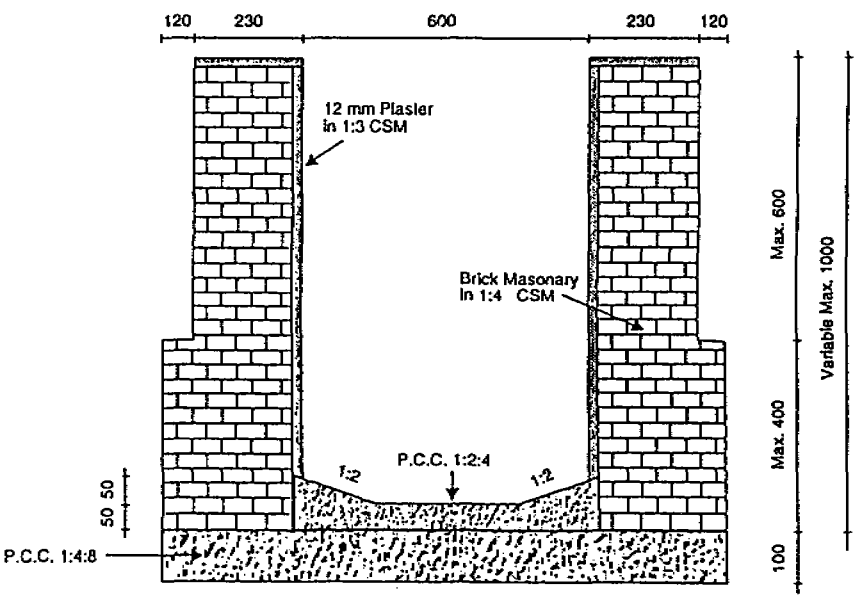

Type D

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NWFP COMMUNITY INFRASTRUCTURE AND NHA STRENGTHENING PROJECT

STAFF APPRAISAL REPORT

OPERATIONS AND MAINTENANCE

1. It is a fundamental objective of the project to involve the communities more in the operation and maintenance (O&M) of the local infrastructure which serves their respective communities. This is a thrust of government policy which has recently agreed that rural water supply schemes should become a responsibility of the communities to operate and maintain under the guidance of the respective District Council.

2. Operation and maintenance is presently the responsibility of the local council, although in most rural areas little or no maintenance exists other than for water supply schemes operated by PHED. Fees and connection charges, where an attempt is made to collect them, do not result in revenues sufficient to cover O&M costs.

3. Community participation will vary from scheme to scheme and between urban and rural areas. O&M activities considered to have potential for community involvement have been established for individual infrastructure sub-components and are set out in the attached Table. Community cost sharing of the following activities is proposed: a) provision of free labor (to clean out drains regularly and keep them clear of blockage); b) payment of tariffs and/or rates which adequately cover the costs of system operation (eg electricity supply costs for a tubewell pump); c) building up a fund to cover future equipment repair or replacement; and d) collection, banking, accounting, and disbursement of O&M funds. To begin with community contributions equate to approximately 3% of household incomes. On completion of the works households in the community will continue to make contributions to the CBO for O&M equivalent to an annual payment of 3% of the capital cost of the works provided under the project.

4. The "maintenance culture" is not well developed in Pakistan, and accordingly special attention is being made to attempt to develop satisfactory mechanisms to involve communities in this process. Actions would be taken as follows:

a. organisation of community user groups for O&M of solid waste collection, cleaning of existing drains, and other community facilities (if any) would be undertaken at an early stage of the community mobilization process, and communities would specifically commit to undertake O&M as part of the process of selecting infrastructure;

b. satisfactory O&M of infrastructure would be considered as a factor when seeking to prioritize between communities, and satisfactory O&M of any project-funded infrastructure would be a prerequisite for further project infrastructure; and

c. establishment of satisfactory O&M arrangements would be stressed as an important output from the Design and Implementation Technical Assistance.

OPERATION AND MAINTENANCE

Proposals for community involvement in infrastructure provision

Infrastructure Component	Description of Sub-component	Responsibilities for O & M of sub-component
	A. WATER SUPPLY	
Primary	SOURCE: **Groundwater** **Surface water** **TRANSMISSION** **STORAGE:** **DISTRIBUTION:**	PHED or District Council for Primary systems
Secondary	Local storage Secondary mains	CBO-unskilled maintenance: cleaning valve chambers, reservoir guards etc under supervision
Tertiary - on plot	Tertiary network Delivery pipes House connections Public standposts	CBO-Operators, cleaners, keepers
Non-piped supplies	Individual wells and springs	CBO-Full operation responsibility
	B. SANITATION	
Primary	Pre-treatment ponds Collector sewers Pump stations Desludging vehicles Sludge disposal areas	CBO-Unskilled maintenance: cleaning, grass cutting, scum removal, screen cleaning, unblocking CBO-Provide manual alternative CBO-Provide unskilled maintenance
Secondary	Secondary network Communal latrines including desludging septic tanks	CBO-Cleaning, screen cleaning,
Tertiary	House connections	CBO-Full operational responsibility
On-plot sanitation	Septic tanks Latrines	Householder responsible

Infrastructure Component	Description of Sub-component	Responsibilities for O & M of sub-component
	C. SOLID WASTE	
Final Disposal and transfer, for urban systems	Landfill site Landfill equipment Major transfer stations Collection trucks	Local Council or Corporation, through direct labor or contractor
Transfer	Local transfer stations Handcarts	CBO-Provide collection from local collection points to local disposal and street sweeping service;
Local collection	Collection Points	Householders deposit SW to points
	D. DRAINAGE	
Primary	Main outfalls Main channels Pumping stations	Local Council or Corporation generally but CBO assistance in periodic cleaning by manual labor
Secondary	Secondary network	CBO-Major role in periodic cleaning
Tertiary	Area drainage system Road side drains	CBO-Major role in continuous cleaning and upkeep
	E. ROADS	
Primary	National & provincial networks Main arteries	Road Authority
Secondary	Access roads	Local Council or Corporation for periodic maintenance CBO- Routine maintenance such as sweeping & filling potholes
Tertiary	Footpaths Minor streets	CBO- Sweeping, repair of brick, stone or concrete streets and paths

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PROCUREMENT OF CIVIL WORKS

	Type A - Works	Type B - Works Community Tendered Schemes	Type C - Works Community Contracted Schemes
Item	Primary/trunk infrastructure with elements of secondary works where required for practical purposes.	Typical secondary and tertiary works grouped into packages of water supply, drainage and street paving works as applicable.	Small and relatively simple secondary and tertiary works carried out directly by the community. Such works may include brick/concrete paved streets, drains, stone masonry pitching and brickwork - works not requiring the use of substantial construction plant or equipment.
Value	Packaged into contracts for communities within the same phase and PIU/Division so as to encourage qualified contractors and to make procedures manageable and easily understood. Likely value Rs. 3 million to Rs. 5 million.	Up to the PIU Deputy Director's authorized level of delegated powers (currently up to Rs 1.5 m).	About Rs 600,000 (at any time).
Procurement	Local Competitive Bid (21 days clear notice). Advertise in at least one English and one Urdu paper of national circulation.	Local Competitive Bidding. Alternatively prudent local shopping (3 quotations) if poor response to bidding. 14 days clear notice in at least 1 English and 1 Urdu newspaper of provincial circulation, and posted on local council notice boards and in other relevant locations.	Direct "contracting" by community self help. Payment based on the principle of the agreed Engineer's estimate reduced by the amount of contractor's profit and income tax.
Bid Documents	Similar to 1992 Flood Damage Relief Project small works documents (for works up to Rs 15 million). Item rate tender. Shall include scheme drawings, specifications and standard engineering details and other procurement documentation to be prepared by PMU.	Simple percentage rate document modelled on concept of existing PDA documentation with suitable amendments to suit CIP. Shall include standard engineering details and other documentation to be prepared by PMU but modified as necessary for individual bid packages.	Proposed Community Financing Agreement and scheme drawings and specifications, including standard engineering details and documentation to be prepared by PMU but modified as necessary to suit individual packages as agreed with the CBO.
Contractor Pool	Registered A/B class contractors listed with PUDB, PHED, LGERDD, C&W or Local Council etc. as appropriate for similar types of work.	Class 'C' contractors registered with PUDB, PHED LGERDD, C&W, Local Council etc. as appropriate for similar works or post qualification in accordance with criteria detailed in the questionnaire attached to the form of tender.	CBO (which may subcontract items to local traders in consultation with Procurement/Contract Award Committee representative).

	Type A - Works	Type B - Works Community Tendered Schemes	Type C - Works Community Contracted Schemes
Procurement/Contract Award Committee	Director for Design and Implementation (CIP), Local Council Representative(s), CBO Representative(s), Leader of the Technical Advisors Team, Representative of PMU Finance.	Deputy Director (PIU), CBO Representative, Leader of Technical Advisors Team, Local Council Representative, Representative of PMU Finance.	Assistant Director (PIU), Local Council Representative, Technical Advisor.
Employer	Director for Design and Implementation (CIP).	Directorate for Design and Implementation (CIP) and CBO Jointly.	Directorate for Design and Implementation (CIP) and CBO Jointly.
Engineer-in-Charge	Director for Design and Implementation (CIP).	Implementation Committee Comprising: - Assistant Director CIP cell (PIU) - CBO Representative - Technical Advisor	Not Applicable
Engineer's Representative	Technical Advisor.	Technical Advisor	Not Applicable.
Payment through	Standard monthly invoices for work completed.	Monthly bills on simplified, one page format.	Agreed stages based on: - Mobilization - % progress with reconciliation on completion of work.
Payment based on	Certification to be issued by Technical Advisor and endorsed by the Director for Design and Implementation (CIP).	Joint certification to be issued by the Implementation Committee within one week otherwise payment triggered automatically unless a member of the Committee records a written objection. All written objections to be referred to and dealt with by the Appeals Committee before next monthly payment is due.	Certification by Assistant Director (PIU).
Final Acceptance/completion Certificate Committee	Directorate for Design and Implementation (CIP) plus representative of relevant agency which will take over to operate and maintain the works.	Implementation Committee plus Local Council Representative.	Assistant Director (PIU) Technical Advisor
Time required for Procurement	Advertise for Bids 21 days Evaluate Bids 14 days Award and Sign 7 Mobilize 14 days	Advertise for Bids 14 days Evaluate Bids 14 days Award and Sign 7 Mobilize 14 days	Negotiations 14 days Sign CFA 7 days Mobilize 7 days

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IDA DISBURSEMENT SCHEDULE

	Fiscal Year	IDA Disbursement (US$ million)	Cumulative Disbursement (US$ million)	Percent
	Semester ending:			
FY96	June 1996[1]	2.8	2.8	13
FY97	December 1996	1.2	4.0	19
	June 1997	1.7	5.7	27
FY98	December 1997	1.7	7.4	34
	June 1998	2.7	10.1	47
FY99	December 1998	2.7	12.8	57
	June 1999	2.6	15.4	72
FY00	December 1999	2.6	18.0	84
	June 2000	1.2	19.2	89
FY01	December 2000	1.2	20.4	95
	June 2001	1.1	21.5	100

1/ Including PPF refinancing and retroactively financed expenditure.

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MONITORING AND EVALUATION

INTRODUCTION

1. Any project with a strong element of community participation requires close monitoring. The pilot experience have confirmed that communities have varying abilities to organize and manage complex projects. Because it is difficult to anticipate outcomes in this environment, the project has been deliberately designed to encourage learning through experience. Feedback obtained through monitoring facility performance, community capacity development, and effective facility use will be used to improve the system of delivering infrastructure as the project progresses.

2. The PMU would establish and maintain project management systems, and undertake project monitoring and evaluation covering the design of baseline information to be gathered in each CIP site before detailed preparation, and an MIS for project management and performance monitoring. The project would have two types of M&E which would be closely coordinated in all phases of the development cycle. This include: (i) performance and process monitoring, and (ii) impact evaluations. Workshops and sample studies carried out with the assistance of specialists would recommend changes in the type, quantity and frequency of data collected, improved information gathering and reporting formats, and procedures for data gathering, processing, analysis and reporting. Formal biennial reviews, plus a mid-term review, will complement the ongoing monitoring and evaluation activities. Impact studies and special process monitoring research would be contracted to outside agencies such as NGO/private, Universities, and training institutions, etc. Analysis of performance and process indicators will be an essential component of these reviews.

COMMUNITY INFRASTRUCTURE

3. The project will employ participatory evaluation techniques in addition to more traditional evaluation methods. Because the community plays an important role in planning, implementing, and using the infrastructure, its input can be valuable in modifying the indicators shown below or in identifying additional indicators. Indicators are developed to analyze whether the CIP objectives are being achieved, costs, efficiency of organizational procedures and inter-agency coordination, quality of project processes and outputs, accessibility to beneficiaries, and replicability. The following list is therefore neither exhaustive nor final, but presents model monitoring indicators covering key aspects of the project's implementation and outcomes.

CIP Performance and Process Indicators

4. These indicators focus on the adequacy of inputs and outputs at all levels in terms of human, financial, implementation and monitoring of sub-projects. It would regularly assess the adequacy of functions and services of the different groups of participants involved in terms of their

performance within their agreed obligations and terms of reference. Finally, it will provide feedback to the management through process monitoring of the efficiency and effectiveness of methods use in project planning, implementation, and O&M.

a. Community/CBO Level

Mobilization/Capacity Building

- number/and type of CBO formed/registered
- share of population represented by CBOs
- role of men/women in CBO
- nature of female representation

Participatory Planning

- CBO trained in CAP
- No. and type of community training
- No and CAP sessions undertaken/frequency of meetings
- types of decisions taken by CBO/women
- share of households participating in CAPs
- M&E impact information collected
- Infrastructure layout plan prepared and agreed
- Capital cost contribution in cash/amount of time collected
- Contribution for O&M
- Community Development programs proposed/agreed
- Women's participation in health KAP/other social programs

Implementation

- No. and type of infrastructure scheme completed in time
- Quantity/capacity of works completed
- Share of works executed by community/local contractors
- timely procurement of necessary equipments/tools
- Process of user group formation
- CBO/user group member trained in O&M
- No. and type of classes/training sessions undertaken for community development programs (HSE, NFE, skill training)
- No. and type of people attending classes
- Communication/education materials developed
- Women support programs undertaken

O&M/Monitoring Stage

- No. and type of schemes in working condition
- CBO/User Group trained in follow up O&M
- No. and type of repairs undertaken
- Availability of O&M tools and spare parts
- User group/households participation in O&M collection

- No. and type of community development training undertaken
- User Group/Households participating in M&E activities

b. Agency (PMU/PIU) Level

- No. and types of communities visited/rejected
- No. and type of infrastructure schemes selected for funding
- % of community sites failed on different criteria
- Average processing time at each phase/development cycle
- timely staff recruited
- staff trained in CIP planning and implementation
- No. and type of training and supervision support to staff
- staff performance evaluated
- linkages and level of support to CBO/User groups
- No. and types of NGOs that participated
- level of inter-agency coordination and feed-back
- quality and timeliness of progress reports/monitoring
- effectiveness of TA

CIP Impact Indicators

5. These indicators focus on measuring the net impact of the project on the beneficiary communities and the agencies by comparing the conditions, quantity, and quality of infrastructure facilities and services, hygiene and environmental sanitation practices before and after the CIP interventions.

a. **Reliability of Systems**
- number of facilities in working condition
- maintenance performed adequately

b. **Human Capacity Development**
- timely allocation of staff
- incremental staff added and trained
- CBO/User group organized and trained
- Changes in staff/CBO members attitude

c. **Cost-sharing**
- community contribution
- agency/local government contribution
- mechanism to collect O%M fees

d. **Collaboration Among Organizations**
- nature and frequency of meetings
- frequency in reporting and feedback

e. **Effective Use of Facilities**
- number and characteristics of users
- quantity consumed

- time taken to use facilities
- quantity wasted
- water handling and use
- home use practices (food handling, environmental sanitation)
- personal hygiene

f. **Community Ability to Expand Services**
- additional facilities built
- new development activities initiated

g. **Transferability of Agency Strategies**
- established institutional framework
- working administrative and implementation procedures
- timely allocation/release of budget

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SUPERVISION PLAN

Approx. Dates	Activity	Skill Needs	Staff Weeks
March 1996	Project Launch Workshop: project management; procurement; disbursement; accounting & audit; and monitoring & reporting.	- Project manager - Municipal Engineer - Community Development - Procurement Specialist - Disbursement Specialist - MIS Specialist - Financial Analyst	8
November 1996	Routine Supervision plus Review: procurement of primary infrastructure; community contracting arrangements; funds flow and scheme account procedures	- Municipal Engineer - Community Dev. Specialist - Financial Analyst	6
February 1997	1st Biennial Review Review implementation of: training program; Phase 1 site works; community mobilization; and NHA Technical Assistance. Review Design & Implementation Consultants Work Plan.	- Municipal Engineer - Community Development - Financial Analyst	8

September 1997	Routine Supervision plus Review: completion of priority civil works for quality and timeliness; cost sharing arrangements; mobilization of Phase 2 communities; development of the future training program; and use of appropriate planning and design standards for Phase 2.	- Municipal Engineer - Community Development - Financial Analyst	6
February 1998	Routine Supervision plus Review: quality, cost, timeliness of civil works; and LGERDD Institutional Development Study.	- Municipal Engineer - Institutional Development	6
June 1998	Mid Term Review: evaluate progress to date; review processes & procedures, and amend as necessary prior to preparation of Phase 2B sites; establish amended plans and targets; identify Phase 3 sites; and revise monitoring indicators.	- Municipal Engineer - Community Development - Financial Analyst - Sector Implementation Coordinator	9
September 1998	Routine Supervision plus Review: an interim evaluation of community participation in planning, design & construction; and O&M performance and CBO sustainability.	- Municipal Engineer - Community Development - Financial Analyst	4
February 1999	Routine Supervision plus Review: civil works; and evaluate training program.	- Municipal Engineer - Community Development - Financial Analyst	6

September 1999	2nd Biennial Review: review implementation of Phase 1.1 sites; review O&M arrangements; evaluate community development sub-component; assess the effectiveness of efforts to involve women; and discuss implementation of LGERDD Study.	- Municipal Engineer - Community Development - Financial Analyst	7
February 2000	Routine Supervision and Review: civil works and O&M; impact of NHA Technical Assistance; and draft final report for future project.	- Municipal Engineer - Community Development - Financial Analyst	6
February 2001	Routine Supervision, initiate preparation of ICR plus Review: implementation of Phase 2 and sustainability of Phase 1 schemes.	- Municipal Engineer - Community Development - Financial Analyst	6

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ECONOMIC ANALYSIS OF INFRASTRUCTURE INVESTMENT

1. Under conservative assumptions about the increase in property values that will result from upgrading, the community infrastructure component will yield an economic internal rate of return (EIRR) of approximately 31%. The component will generate positive net present values with discount rates exceeding 30% under a variety of plausible scenarios. These results are modestly sensitive to assumptions about base costs and initial property values.

2. Water, drainage, sanitation, solid waste, and access improvements are expected to provide benefits that will be reflected in property values. A project preparation study suggests that, after allowing for other factors, infrastructure provision can increase plot values by as much as 50 to 150%. Table 1, which is based on data from this study, presents a simple comparison of the prices of serviced and unserviced plots for eight cities; the differences range from 20 to 141%, with an average value of about 87%. These results should be interpreted cautiously because the study compares areas with little or no infrastructure to those with complete infrastructure built to standards that likely exceed those that will be used in the proposed program. Table 1 thus overstates the benefits that would accrue to CI communities.

Table 1
Differences Between Serviced and Unserviced Land Prices
in Eight Cities: 1990
(Rs. per square yard)

City	Without Services	With Services	Difference (%)
Hyderabad	300.7	524.5	74
Lahore	794.8	1,913.6	141
Faisalabad	580.2	925.0	59
Bahawalpur	395.2	804.1	103
Sahiwal	435.3	523.2	20
Gujranwala	316.4	605.8	91
Quetta	692.2	1,190.6	72
Mirpur	515.8	1,220.3	137

Source: T. P. O'Sullivan and Partners, et al., "Land Accessibility Study (City Profiles, Developer and Broker Studies): Final Report," July 1991, p. 17. Price data was also collected for Mardan and Muzaffarabad; however, the samples were too small (less than 30 observations) to be considered reliable.

3. Additional research from around Pakistan supports the theory that upgrading should produce higher property values. For example, in a property tax study of Lahore, Slingsby compared changes in the dwelling characteristics of an upgraded area to those occurring in an adjacent area that was scheduled for upgrading and discovered a sharp increase in the number of kitchens and bathrooms in the upgraded area. He attributed this incremental investment, in part, to better access to services (i.e., water supply, sewerage, street surfacing, drainage, solid waste management) [Ernest Slingsby, "Reform of Property Taxes," memorandum, no date. p. 4].

4. Several researchers have used hedonic analysis to assess the contribution of specific dwelling features to rents and dwelling values. Lodhi and Pasha used hedonic analysis to demonstrate, among other things, that piped water supply and electricity were positively correlated with rents in katchi abadis in Karachi [Akhtar Lodhi and Hafiz Pasha, "Housing Demand in Developing Countries: A Case-study of Karachi in Pakistan," Urban Studies, Vol. 28, No. 4, 1991, pp. 623-634]. Similar analyses based on data from more cities were carried out by Akbar, who found piped water and piped gas to be important contributors to rent. He also found access to a pucca road to be a strong contributor to home values [Mohammad Akbar, "Rate of Return to Investment in Housing Attributes," Applied Economics Research Centre, University of Karachi, research paper, no date].

5. Property values can indicate a willingness to pay for improved health and living conditions; however, they may not do a good job of capturing potential indirect benefits such as higher productivity from improved health and greater economic activity in the form of home-based businesses. No attempt is made here to measure these indirect benefits.

6. To obtain a more precise estimate of property values increases, the Table 1 data must be adjusted to take into account that CI communities will: (1) already have an existing level of services; (2) use infrastructure standards that are lower than those used in typical sites; and (3) demand slightly less than a full package of services. In calculating the EIRR, we assume that plot values in CI communities will increase by not more than 25% of the 87% average increase (i.e., 21.8%) after making a 50% allowance for the value of existing services and a 25% allowance for utilization of modest standards. We also assume that CI communities will demand on average about 95% of a full upgrading packages. We know that a complete upgrading package utilizing modest standards costs about Rs. 181,000 per hectare. We expect communities on average will request investments costing about Rs. 172,000 per hectare, or about 95% of the complete package cost. Taking 95% of the maximum possible plot value increase of 21.8% yields 20.7%.

7. In the following analysis, the EIRR is estimated assuming a land value increase of 20.7%. In addition, a sensitivity analysis is presented in which the net present value (NPV) of the investment is estimated while varying base costs, initial plot values, and plot value increases.

8. A number of assumptions apply to both the EIRR and NPV calculations: (a) the implementation period is six years; (b) the total investment is distributed as follows: 25.5% water supply; 25.8% drainage; 13.8% sanitation; 1.2% solid waste; and 33.8% access; (c) the average plot value before improvements is Rs. 60,000 (d) administrative costs are 20% of base investment costs; and (e) the economic conversion factor is 0.8. All figures are in 1994 Rupees.

9. Table 2 shows the number of households benefitting from the program each year and the

benefits accruing to them expressed as an increase in plot values. It also shows the net benefits under various assumptions about plot value increases. Changing the plot value increase from 20 to 25% causes net benefits to more than double over the project's life. Net benefits are negative when plot values only increase by 15%.

Table 2
Number of Beneficiaries and Net Benefits
for the Community Infrastructure Component: 1996 to 2001
(thousands of Rupees except where noted)

	1996	1997	1998	1999	2000	2001
Benefits						
households served (number)	4,208	10,220	16,232	16,232	10,220	3006
plot value increase						
15.0%	37,874	91,979	146,084	146,084	91,979	27,053
20.0%	50,498	122,639	194,779	194,779	122,639	36,070
20.7%	52,266	126,931	201,596	201,596	126,931	37,333
25.0%	63,123	153,298	243,474	243,474	153,298	45,088
Costs	38,582	96,739	155,438	154,968	99,488	29,195
Net Benefits Assuming Different Plot Value Increases						
15.0%	(709)	(4,760)	(9,354)	(8,884)	(7,509)	(2,142)
20.0%	11,916	25,899	39,341	39,811	23,151	6,876
20.7%	13,683	30,192	46,158	46,628	27,443	8,138
25.0%	24,540	56,559	88,035	88,506	53,811	15,893

10. Using the benefit and cost data in Table 2 associated with a 20.7% plot value increase, one can calculate an EIRR of about 31%. The EIRR is sensitive to changes in plot value increases. For example, a 19% plot value increase would yield an EIRR of about 20% while a 23% rise in plot value would result in an EIRR of around 45%.

11. The NPV calculations offer an alternative to the more volatile EIRR for gaining insight into the economic viability of the infrastructure component under a variety of situations. As one would expect based on the EIRR analysis, the NPV is not very sensitive to the discount rate, but is somewhat sensitive to the assumed plot value increase. Table 3 shows that with a 20% increase in plot values the NPV remains

positive with discount rates ranging from 10 to 50%. A fivefold increase in the discount rate (from 10 to 50%) reduces the NPV by less than two-thirds. On the other hand, raising the plot value increase by 5 percentage points (from 20% to 25%) more than doubles the NPV, everything else equal.

Table 3
Net Present Value Under Various Scenarios

Assumptions		
plot value increase	discount rate	net present value
20%	10%	107,242
20%	20%	81,488
20%	30%	63,966
20%	50%	42,628
25%	10%	238,029
25%	20%	180,304
25%	30%	141,189
25%	50%	93,546

Note: Monetary values are expressed in thousands of 1994 Rupees.

12. Taking the case where plot values increase by 20.7% as the "base case," sensitivity analysis (not shown) reveals that the NPV remains positive (using a 30% discount rate) after reducing the average plot value before improvements from Rs. 60,000 to Rs. 55,000, or increasing the base costs by 10%. The EIRR in these two alternative scenarios drops to 19.5% and 18.5%, respectively. The NPV remains positive even after increasing base costs by 20%.

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DOCUMENTS IN PROJECT FILE

1. First Year Assessments of the Pilot Project in Sindh and NWFP.

2. Pilot Project on Community Mechanisms in NWFP, Final Report

3. Government of the North-West Frontier Province, Rules of Business 1985.

4. Government of NWFP Finance Department - Delegation of Powers under the Finance Rules and the Powers of Re-Appropriation Rules 1981 (As Revised in 1992).

5. Government of NWFP, Hand Book of Instructions, Laws, Bye-Laws, Rules, Etc., Local Government and Rural Development Department. (Includes the Nort-West Frontier Province Local Government Ordinance 1979.)

6. Typical Tender Documents - Type A Works;
   Type B Works;
   Technical Specifications - Volume 1, General Civil Engineering Works;
   Volume 2, Community Works.

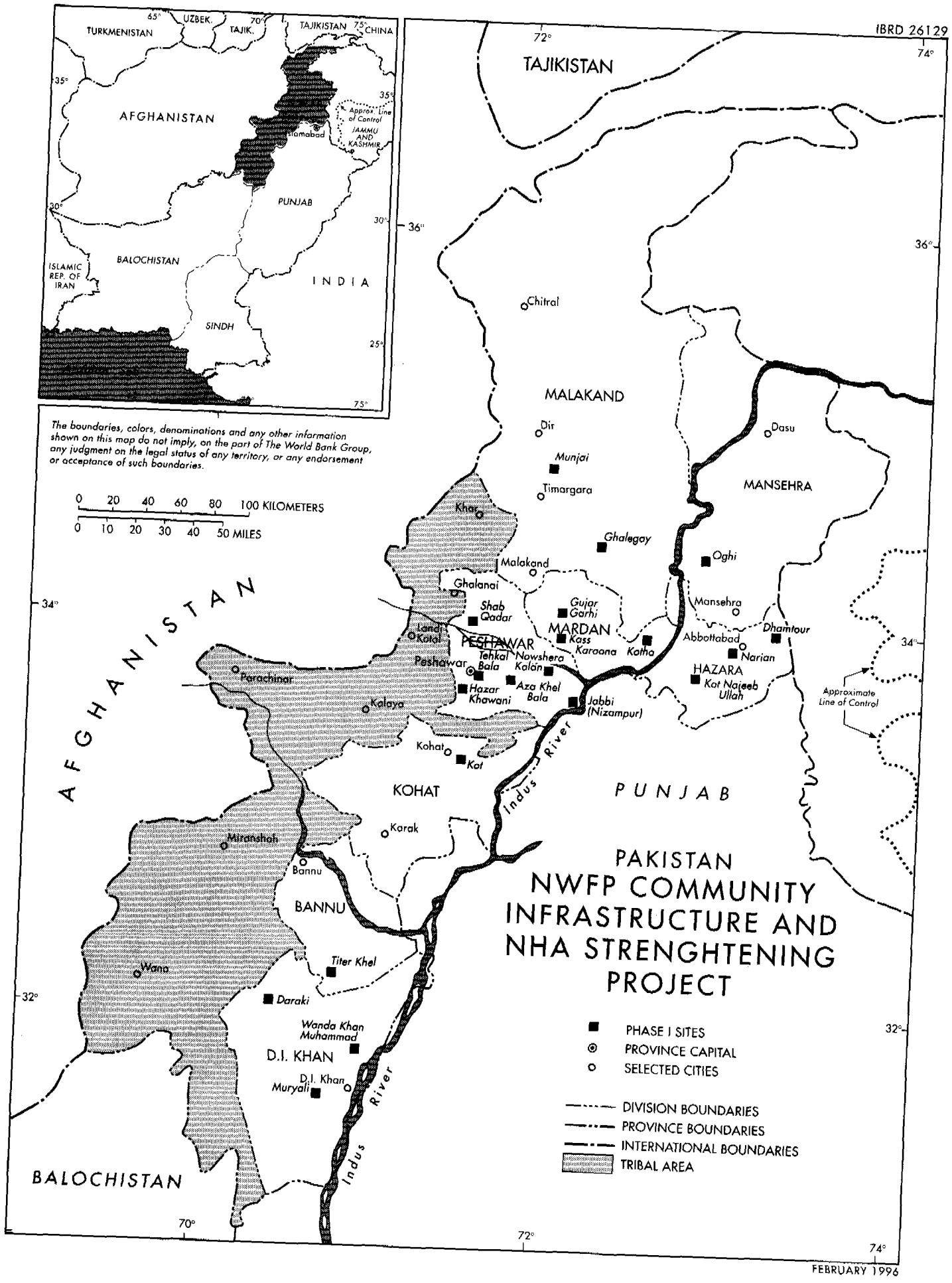
7. Draft Standard Agreements - InterAgency Coordination Agreement;
   Memorandum of Understanding;
   Community Action Plan;
   Community Financing Agreement.

8. Design and Implementation Consultants - Draft Terms of Reference.

9. Engineering Reports, Volumes 1 & 2 (Sites 1 to 14).

10. Environmental Assessment (Sites 1 to 14).

11. National Housing Authority Documents - National Housing Policy;
    NHA/Executive Committee;
    National Action Plan;
    Land Allotment Boards.


IBRD 26129
TURKMENISTAN
UZBEK.
TAJIK.
TAJIKISTAN
CHINA
AFGHANISTAN
Approx. Line of Control
JAMMU AND KASHMIR
Islamabad
PUNJAB
BALOCHISTAN
ISLAMIC REP. OF IRAN
INDIA
SINDH
The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of The World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries.
0 20 40 60 80 100 KILOMETERS
0 10 20 30 40 50 MILES
TAJIKISTAN
MALAKAND
Chitral
Dir
Munjai
Timargara
Khar
Ghalegay
Malakand
Ghalanai
Shab Qadar
Gujar Garhi
MARDAN
Kass Karoona
Katha
PESHAWAR
Tehkal Bala
Nowshera Kalan
Peshawar
Hazar Khawani
Aza Khel Bala
Jabbi (Nizampur)
Landi Kotal
Parachinar
Kalaya
Kohat
Kot
KOHAT
Karak
Miranshah
Bannu
BANNU
Titer Khel
Wana
Daraki
Wanda Khan Muhammad
D.I. KHAN
D.I. Khan
Muryali
BALOCHISTAN
AFGHANISTAN
Indus River
MANSEHRA
Dasu
Oghi
Mansehra
Abbottabad
Narian
Dhamtour
HAZARA
Kot Najeeb Ullah
Approximate Line of Control
PUNJAB
PAKISTAN
NWFP COMMUNITY INFRASTRUCTURE AND NHA STRENGHTENING PROJECT
PHASE I SITES
PROVINCE CAPITAL
SELECTED CITIES
DIVISION BOUNDARIES
PROVINCE BOUNDARIES
INTERNATIONAL BOUNDARIES
TRIBAL AREA
FEBRUARY 1996